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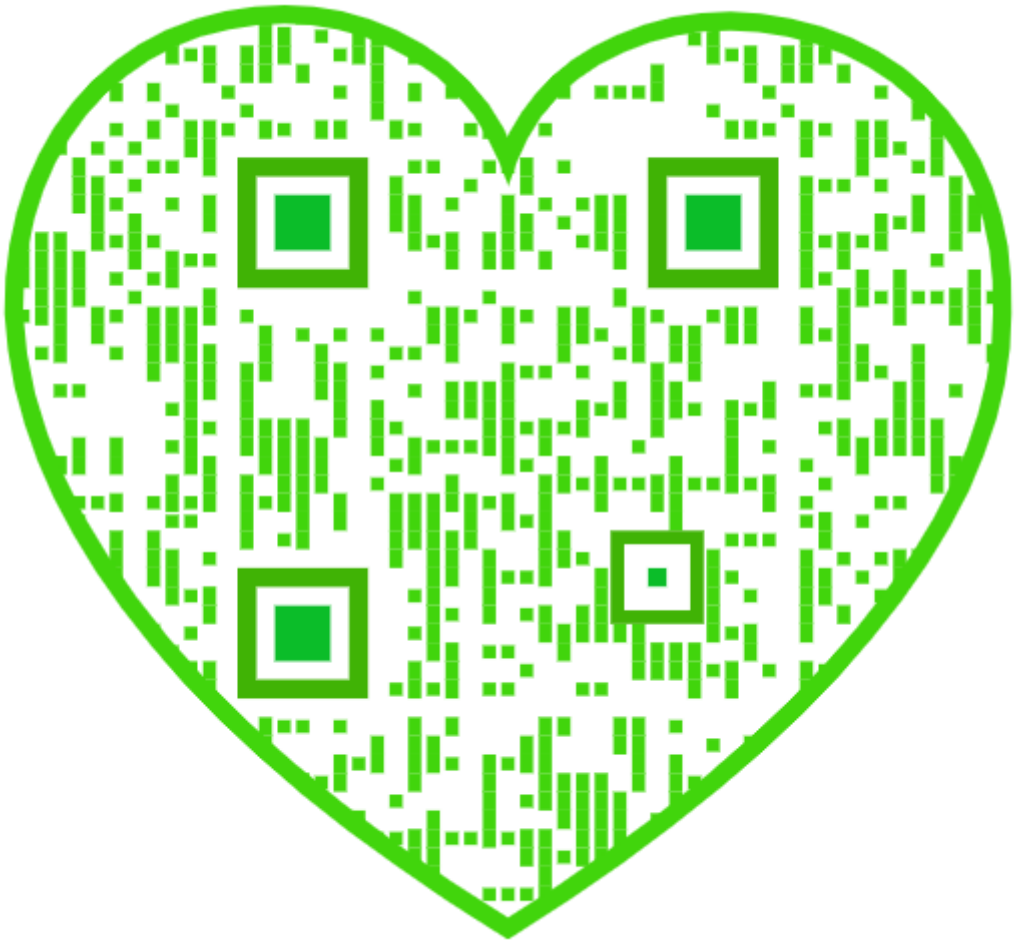
# A BRIEF GEOGRAPHY OF NEW EUROPE

HARMON B. NIVER
EDWARD D. FARRELL

HINDS, HAYDEN & ELDREDGE



# A BRIEF GEOGRAPHY OF NEW EUROPE

BY

HARMON B. NIVER

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AND

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FORMERLY DISTRICT SUPERINTENDENT OF SCHOOLS
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# PREFACE

As a companion volume to our "Brief Physical" and "Brief Commercial" Geographies, the publishers take pleasure in presenting the present "Brief Geography of New Europe." The new nations which have just emerged from the bloody strife of four long years are still a long way from the conditions of peaceful industry, and it is only a matter of conjecture as to what their place will be in the geography of the future. We do not know what they will do, but at any rate, when the aftermath of war has cleared away, they will have a fair start on the road to industrial and commercial progress. They will begin a new career as free nations, for the war just closed marks a radical change in the basis of political geography. The physical basis, of course, never alters except by the action of the forces of nature through infinite periods of time. The primitive boundaries of nations were mainly natural barriers, such as oceans, mountain ranges, deserts, and broad rivers. The people living within such boundaries — usually of the same race — gradually adapted themselves to their environment, and became welded together by a common language, religion, and traditions. In the absence of migrations, conquests, and ready means of communication, these natural barriers became effective national boundaries. The Chinese and Oriental nations generally are examples of these primitive conditions, under which nations have settled down within natural boundaries and lived for centuries at peace with the rest of mankind.

When, however, a people becomes too big for the land it occupies, migration becomes a necessity, and a large part of the history of mankind, hitherto, has dealt with the movements of bodies of men from the more densely populated regions into those that afforded a better means of livelihood. Such migrations involved the subjection of the savage or barbarous nations who occupied the soil or of civilized nations

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too weak to withstand the onset of the newcomers; hence, the "rule of the strongest" was substituted for natural barriers as determining national boundaries. This process of migration and conquest has continued until there are no more lands to conquer, and it has become necessary to find some permanent basis on which to divide the world among the nations.

The war just closed marks, we hope, the end of the rule of power. The nations of central Europe, like the savage Teuton chief with whom Julius Caesar treated 2000 years ago, "thought their lands too small for people of their importance and dignity," and they set out to conquer the rest of the world. Their ignominious failure has taught the world that the "rule of right" must be substituted for the "rule of might."

The strongest ties that bind men together into nations are those of race, language, and religion; and for those nations that have learned to respect the religious rights of others, race, language, and common traditions should determine their national boundaries. It was a saying among the ancient Greeks that "wherever Greeks live, there is Greece." It was decided by the Peace Congress at Versailles that the people themselves should decide whether they would have an independent national existence; or if not, to what nation they should be joined. This principle of "self-determination" was acquiesced in by the representatives of the "Five Great Powers" — United States, Great Britain, France, Italy, and Japan — and by those of the 22 lesser powers, who together drew up the Peace Treaty and the "League of Nations."

This principle gives also to each people the right to decide what form of government they shall have. Thus certain districts and provinces which had been forcibly taken and ruled by Germany, Austria, Russia, and Turkey, have been restored to the people who inhabit them and now take their places in the family of nations; such are Poland, Jugo-Slavia, Czechoslovakia, Esthonia, Lithuania, Latvia, and Finland. Other districts wrested from the rightful owners have been returned, as Alsace-Lorraine, Schleswig, Transylvania, and others. Still other districts, in which the will of the people is uncertain, will be allowed to decide by a popular vote to which nation they shall be attached.

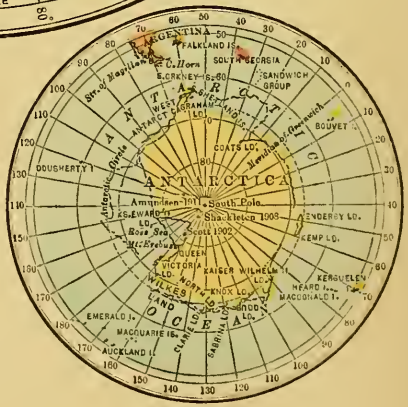
In all this we see the triumph of Democracy — the triumph of the will of the people over the domination of kings, aristocracies, or classes.

We see the triumph of the American form of government, which is "of the people, by the people, and for the people."

There are yet lands of another character which were provided for by the Peace Treaty, and these are the colonies held by Germany in Africa and among the islands of the Pacific ocean. These lands are inhabited by people too low in the scale of civilization either to govern themselves or to decide their future. These colonies have been made "mandatory" — that is, they have been placed under the tutelage of stronger nations until such time when their people shall have reached a stage of intelligence that will enable them to determine how or by whom they shall be governed. At this writing many questions remain unsettled. Russia, western Asia, and southeastern Europe are still engaged in civil wars, the outcome of which cannot be predicted with certainty, but the principle of self-determination will in the end prevail, and we shall see the world inhabited by one great, united family of free, self-governing nations, living in peace with one another.

# WESTERN HEMISPHERE

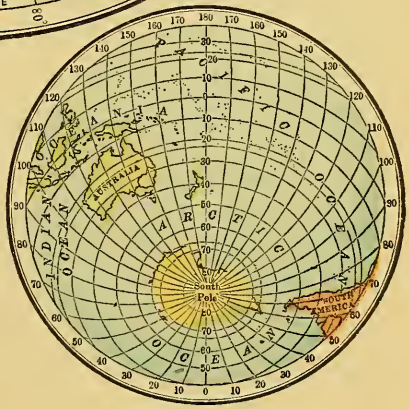
NORTH POLE




SOUTH POLE

# EASTERN HEMISPHERE

LAND HEMISPHERE




WATER HEMISPHERE

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# CHAPTER I

## EUROPE

Answer the MAP STUDIES questions, *pages* 20–21.

Before studying the text read the RELIEF MAP (*page* 12) and the CONTOUR MAP (*pages* 16–17) in connection with the MAP STUDIES (*pages* 13 and 16–17). Constant reference should be made to the other MAPS and illustrations in order to make the text clear and to fix in mind matters relating to surface, location, and direction.

**Location, Size, and Importance.** — Europe is the most **centrally located** of all the continents. This advantage of location has greatly favored the development of European **commerce.** Only Australia and the countries of eastern Asia are so far distant as to make communication somewhat difficult.

If we look at the map on *page* 7 we may see that Europe is not really a separate continent, but that it is part of a larger mass of land to which the name **Eurasia** is commonly given. Europe forms less than one fifth of this land mass and appears on the map as a very irregular **peninsula** jutting out from the west of Asia. From this main peninsula, five or more smaller ones extend far out into the surrounding waters, and the coasts are so deeply cut by seas, bays, and estuaries that the interior parts are brought within a few hundred miles of the seacoast.

In **size** Europe is, next to Australia, the smallest of all the continents. Its area is less than half that of North America, and only a little larger than that of the United States. Having over 450,000,000 people it ranks next to Asia in **population**, though it has about one fifth the area. Europe surpasses all the other continents in the number of its populous **nations**, in its commerce, and wealth.

**Races of Europe.** — The people of Europe belong mainly to the white race and are divided into three great branches: The **Teutonic races** occupy the northern and western parts embracing England, Germany, Holland, Norway, Sweden, Denmark, Austria, and parts of Switzerland and other countries. The **Latin races,** so called because their languages are composed largely of words derived from the

Latin language, occupy the southern parts and include the French, Spanish, Portuguese, Italian, and Rumanian. The **Slavonic races** occupy eastern Europe and the Balkan peninsula; the chief nations of this race are the Russians, Poles, Bulgarians, and Serbians; others are the Letts, Czechs, Slovaks, Slovenes, Croatians, and numerous minor tribes. Besides these three leading races there are the Lapps, Finns, Esths, Turks, Tartars, and the Magyars, or Hungarians, belonging to the **yellow race**; and along the western edge of the continent we find people of the **Celtic race**, the oldest of the white races in Europe.

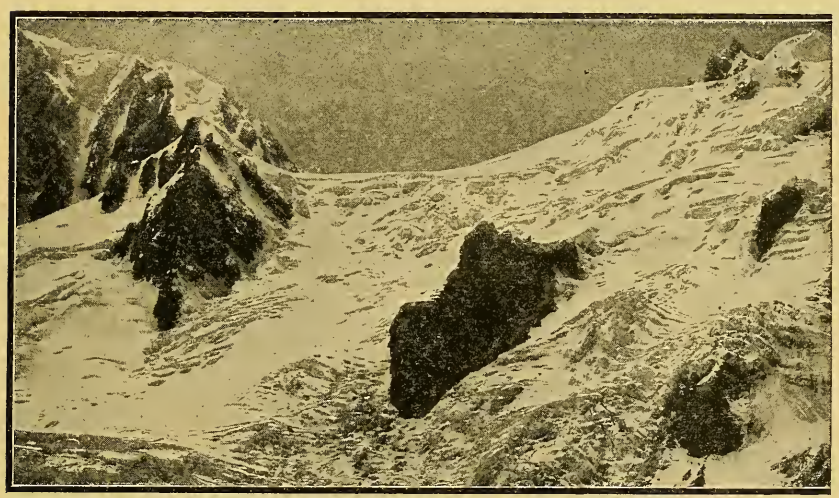
The valley of Chamonix and the mount Blanc range.

**The Greeks and Romans.** — More than three thousand years ago **Greek** emigrants crossed the Ægean sea and made settlements on the islands and along the coasts of southern Europe. They grew to be the rulers of most of the lands bordering the Mediterranean sea and finally, under **Alexander the Great**, they conquered the world. **Latin** tribes also made their way westward by land and established homes in the Italian peninsula. While the Greeks were ruling the rest of the civilized world, the Romans were building up a strong government at Rome. They gradually conquered all of **Italy** and extended their conquests into **Asia** and **Africa**. The Greeks were subdued by them. In the first century before Christ, **Julius Caesar** added Gaul, now France, to the Roman dominions, and Britain and other parts were afterward conquered. The Roman Empire then embraced nearly the whole civilized world.

**The Coming of New Races; the Teutons.** — During the early days of the Roman Empire western Europe had been occupied by **Celtic tribes**. But soon barbarians from the shores of the North and Baltic seas swarmed over the borders, causing the emperors no end of trouble. At first the Romans gave them lands to dwell upon,

but the invaders demanded more and more until at last they captured the city of Rome itself. Some crossed the Pyrenees and established a kingdom in Spain. In the mean time the **Franks** had taken possession of Gaul, and the kingdom of France was begun. Other Teutonic tribes called **Angles** and **Saxons** invaded Britain and built up a number of small kingdoms which afterwards became **Angle-land**, or England.

**The Slavonic Tribes.** — These peoples had their homes on the Russian plain between Germany and the Volga river. East of them dwelt **Tartar** tribes belonging



The Mer de Glace, or Great Glacier, and mount Blanc, the peak on the right of the glacier.

to the Yellow race. In the sixth century, the Tartars attacked the Slavs, driving them westward against the German frontier. Being halted here they spread out north and south, forming a chain of nations extending from the Baltic sea to the Black. In this region to-day we find Bulgaria, Serbia, Jugo-Slavia, Czechoslovakia, Poland, Lithuania, Livonia, Esthonia, Ukrainia, and Russia. Between the Teutonic and Slavic nations are the Magyars, or Hungarians, an Asiatic race related to the Tartars, who made their way into Europe during this early period.

**The Middle Ages.** — For many centuries the Barbarian kingdoms made little progress in the arts of civilized life. This long period is known as the "Middle Ages." During this time **Mohammed** established his religion at Mecca. His followers soon overran a large part of Asia; they took possession of the southern half of Spain. In 1453 the **Turks**, a Mohammedan tribe of Tartars, captured Constantinople, and conquered southeastern Europe as far as the Danube. Their present possessions in Europe are restricted to "Constantinople State."

It was during the early half of the Dark Ages that the new nations were converted to Christianity, for the most part by missionaries sent out from Rome. The **Christian religion** served more than anything else to soften savage customs, to do away with slavery, and to create a respect for law and for the rights of others.

**Modern Nations.** — The invention of gunpowder, the discovery of the use of the compass, and the invention of the printing-press mark the beginning of modern nations and of modern geography. A **desire for trade** led to the search for new lands. Spain, Portugal, France, and England took up the work of exploration and discovery. It was Italian sailors — Columbus, Cabot, and Verrazano, — in the employ of these nations who discovered and explored the New World. Portuguese sailors, Diaz and da Gama, explored the coasts of Africa, rounded the cape of Good Hope, and sailed across the Indian ocean to India.

**Surface and Outline.** — The surface structure of Europe is not unlike that of the other continents; it is composed of **two mountain systems** enclosing a central plain. The **older** system stretches along the northwestern coast through the British Isles and the Scandinavian peninsula; detached portions of it are found also in Russia, Finland, Germany, France, and Belgium. It is everywhere greatly worn down and much of it is covered with magnificent **forests** of pine and spruce. It is also the chief source of **mineral wealth.**

The **younger** and loftier mountain system extends across the southern part of the continent in a general east and west direction. In height it averages about the same as the Rocky mountain system. The Caucasus, the Carpathian, the Alps, and the Pyrenees are the chief ranges; minor ranges are the Balkans, the Apennines, the Ce-

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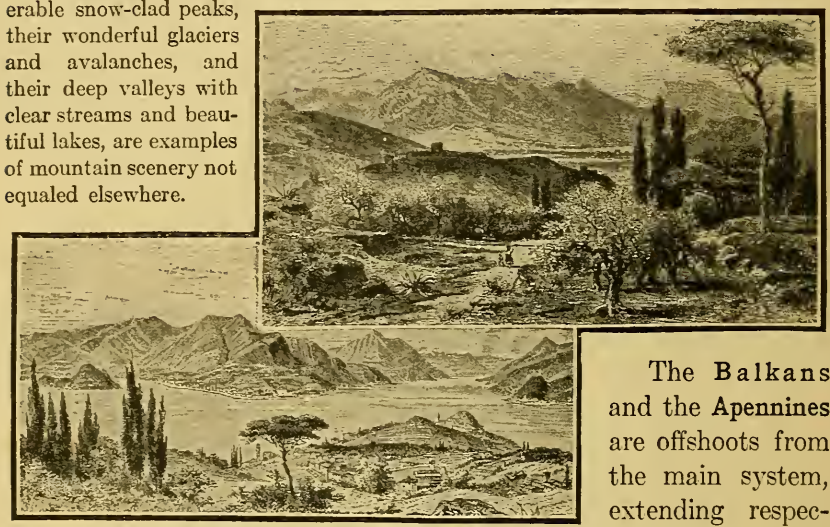
RELIEF MAP STUDIES. — (1) Trace the outline of the Great Central plain of Europe from the bay of Biscay eastward to the Black sea, and from this point eastward and northward to the northern extremity of Russia, then southwestward to the southern shore of England. (For names of physical features see CONTOUR MAP, *page* 16.) What bodies of water occupy the great depression in the northern part of this plain? Find the region of elevation in the central part of the plain. Where do you find the greatest number of lakes? (2) What highland regions border the central plain on the southeast, east, northwest, and south? What is the general direction of the mountains in each of these regions? What river separates the highlands of central Europe from those of southern Europe? What are the chief ranges in each of these divisions? (3) Which sea receives the larger share of the drainage of the central plain? Which sea receives the greatest number of short rivers? Trace by means of the sources of the rivers a dividing ridge across the Central plain from the Ural mountains southwestward to the central highlands. (4) Which countries of Europe are most mountainous? Which lie chiefly in the Great plain? Which lie partly in the Great plain and partly in the mountain regions? (See MAP, *pages* 14–15.)

vennes, and the Jura. The Caucasus and the Alps contain the highest peaks, most of which are covered with perpetual snow. Mount **Elbruz** is over 18,000, and mount **Blanc** over 15,000 feet in height.

The **Alps** are perhaps the most famous mountains in the world. Their innumerable snow-clad peaks, their wonderful glaciers and avalanches, and their deep valleys with clear streams and beautiful lakes, are examples of mountain scenery not equaled elsewhere.

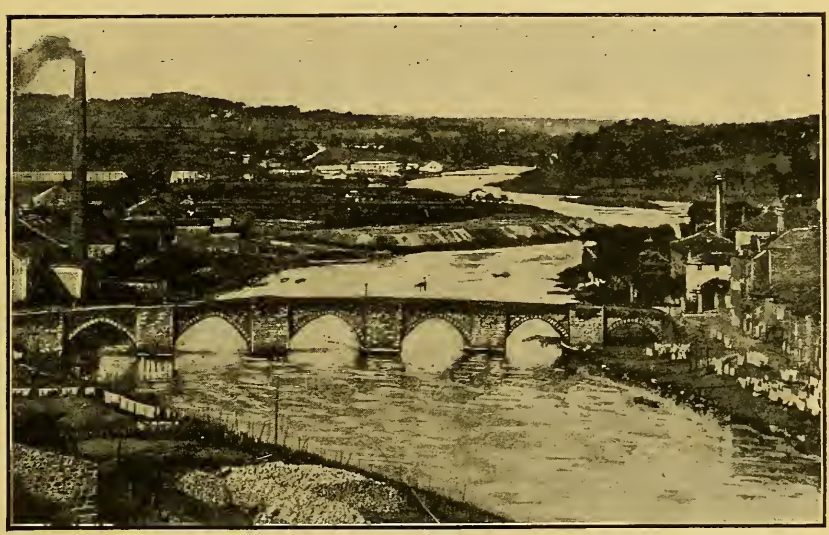


A view among the Apennines in central Italy, and lake Como with the Alps in the background.

The **Balkans** and the **Apennines** are offshoots from the main system, extending respectively into the Greek and the Italian peninsulas. The Balkan peninsula contains many detached peaks and ranges enclosing fertile valleys and plains. The southern half of the Apennines is a noted volcanic and earthquake region containing three active **volcanoes**: Vesuvius, Etna, and Stromboli.

The eruption of mount **Vesuvius** in 79 A.D. was one of the most destructive known in history. The three neighboring cities of Pompeii, Herculaneum, and Stabiæ were completely buried by the lava and ashes and their very existence forgotten. Recently parts of these cities have been excavated and the streets with their houses and temples have been exposed to view just as they were when the Romans lived there. A still greater disaster occurred December 28, 1908, when an earthquake destroyed the cities of **Messina**, **Reggio** (*red'-jo*), and a dozen neighboring towns and villages. More than 100,000 persons were buried in the ruins. No other earthquake so destructive of life and property has ever been known.

The **Carpathian** mountains lie in the center of the continent on the southern border of the Great plain. They curve eastward, then southward like a great bow, crossing the Danube river and partly enclosing the rich plains of Hungary. These plains, once an ancient lake bottom, are now the most productive wheat fields of Europe. The western Alps culminate in mount Blanc. The Jura mountains extend northward from them and approach the Vosges



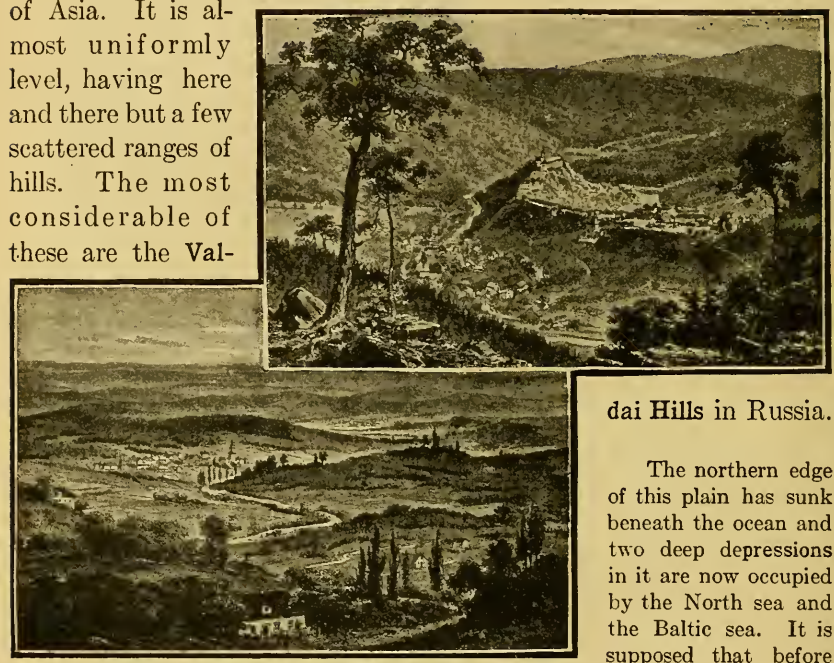
**The city of Limoges on the river** Vienne where it descends from the central plateau of France to the plain.

mountains. These two ranges form the western watershed of the **Rhine valley**. West of these mountains and parallel with them are the **Cevennes** (*sê-ven'*) and the **Côte-d'Or** (*cōte-dor'*) mountains, which form the western watershed of the **Rhone valley**. The **Pyrenees** rise like a great wall, forming a natural boundary between France and Spain. Some of their peaks exceed 11,000 feet in height, and are snow-clad during the entire year. On the eastern border of the continent are the long low ranges of the Urals, which do not appear to belong to either of the systems described.

Physical Map of EUROPE
Scale of Miles
0 100 200 300 400 500
Lowlands 0-600' Dark Green
Plains 600'-1500' Light Green
Plateaus 1500'-6000' Buff
High Plateaus above 6000' Pink
Isotherms 50°
30° Longitude West 20° from 10° Greenwich 0° 10° 20° 30° 40° Long
ARCTIC OCEAN
NORTH SEA
ATLANTIC OCEAN
MEDITERRANEAN SEA
BALTIC SEA
BLACK SEA
Jan Mayen I.
Cape Hoy
Reikiavik
ICELAND
Mt. Hecla
North Cape
Hammerfest
Tromsö
LOFOTEN IS.
Maelstrom
Victoria Haven
LAPLAND
MURMAN COAST
ARCTIC CIRCLE
Kiruna
White Sea
L. Onega
Sea
Ladoga
FARÖE Is.
SHETLAND Is.
ORKNEY Is.
HERBIDES Is.
Trondhjem
Bergen
Christiania
Helsingfors
ÅLAND Is.
Finland
Stockholm
Petrograd
ESTHONIA
Reval
Pskov
Ilmen
L. Peipus
Narva R.
Dwina R.
LATVIA
Riga
Gulf of Bothnia
SCOTLAND
Edinburgh
Glasgow
Belfast
IRELAND
Dublin
Liverpool
Manchester
Irish Sea
BRITISH ISLES
C. Clear
St. Georges Channel
Hull
Sheffield
Nottingham
Birmingham
Hague
Amsterdam
Hanover
DENMARK
Copenhagen
Skager Rack
Kattegat
Gothenburg
GOTLAND
LITHUANIA
Memel
Danzig
Berlin
Elbe R.
Oder R.
Vistula R.
Warsaw
POLAND
Lodz
Pinsk
Marshes of Rinsk
Kiev
UKRAINIA
Dniester R.
Dnieper R.
Bug R.
Odessa
London
English Str. of Dover Channel
Brussels
Antwerp
Rhine R.
Dresden
Prague
Meuse R.
Mannheim
Luxemburg
Brest
Seine R.
Paris
Loire R.
La Rochelles
FRANCE
CZECHO-SLOVAKIA
Vienna
CARPATHIAN MTS.
Pruth R.
Galatz
C. Finisterre
BAY OF BISCAY
Basel
SWITZERLAND
Berne
Geneva
Lake Geneva
Rhone R.
Lyons
Alps
AUSTRIA
Danube R.
Budapest
HUNGARY
RUMANIA
Oporto
Cantabrian Mts.
Valladolid
Pyrenees
Garonne R.
Cevennes
Venice
Milan
Genoa
Belgrade
Bucharest
Lisbon
Douro R.
Tagus R.
Madrid
Ebro R.
Saragossa
Marseilles
Riviera
Florence
Apennine Mts.
ADRIATIC SEA
Rustchuk
Varna
Balkan Mts.
BULGARIA
Barcelona
Corsica
Rome
Cettinje
Sofia
C. St. Vincent
Cadiz
BALEARIC Is.
MINORCA
MAJORCA
S. Nevada Mts.
Malaga
Cartagena
Civica
Sardinia
TYRRHENIAN SEA
Naples
Constantinople
Sea of Marmora
Bosphorus
Gibraltar
Str. of Gibraltar
Tangier
Algiers
Oran
Tunis
C. Bon
Palermo
Messina
SICILY
Mt. Etna
IONIAN SEA
Patras
MOREA
Athens
Smyrna
C. Matapan
MALTA I.
CANDIA OR CRETE
RHODES
AFRICA
Feet in Thousands
20
15
10
5
SEA LEVEL
Mt. Blanc
THE ALPS
Jura Mts.
Rhone R.
Loire R.
Lake
CARPATHIAN MTS.
Pruth R.
ATLANTIC OCEAN
Bay of Biscay
FRANCE
SWITZERLAND
AUSTRIA-HUNGARY
RUMANIA

MAP STUDIES. — (1) What elevation is indicated by each of the colors on this map? In which countries of Europe do you find lowlands? Which country lies chiefly in the region of plains? In which countries do you find elevations exceeding 6,000 feet? In which do you find the greatest extent of plateaus? (2) What mountain ranges are found in Spain? Which of these forms a boundary? What countries lie partly or wholly in the plateau region of central Europe? In what part of Russia do you find elevations exceeding a thousand feet? What is the shape of that part of the central plain lying east of the Elbe river? Trace the contour line in central Europe between the 1,500 and 6,000 foot elevations. What is the form of this line? (3) What rivers of Europe have their sources in the region of plains? What rivers rise in plateau regions? In mountain regions? Name three rivers that flow entirely through plains and lowlands. What rivers have their courses almost entirely in plateau and mountain regions? Which class would be best adapted to navigation? What two rivers have the greatest extent of alluvial plains along their banks? (4) How is the climate of a country affected by elevation? In what parts of Europe would you expect to find a cold climate? Compare the climate of central with that of northern Europe, remembering that temperature falls about one degree Fahrenheit for every 300 feet of elevation (see *page* 75). What can you tell about the effect of climate on the plant life of a country? Name some plants that you think would flourish in each region of elevation. (5) The dotted red lines crossing this map are called isothermal (equal heat) lines. They connect points on the map which have the same average annual temperature. Trace the isothermal line of forty degrees across the map. Can you explain why it is further north on the Atlantic ocean than it is in Russia. Why does it run from north to south in the Scandinavian peninsula? Trace the isothermal of 60 degrees from the Atlantic ocean to the Caspian sea. Along what parallel of latitude is its general direction? Can you give any reason why it follows the parallel of latitude more closely than the isothermals in the north of Europe? What influences other than latitude determine the location of isothermal lines?

**The Central Plain.** — Between the two great mountain systems of Europe lies the Central plain. It begins with a narrow strip of coast north of the Pyrenees mountains, and bends northeastward around the central highland region, gradually widening until in Russia it attains a width of 2,000 miles. Here it joins the great plain of Asia. It is almost uniformly level, having here and there but a few scattered ranges of hills. The most considerable of these are the **Valdai Hills** in Russia.



Views on the plateau in southern Germany. 1. Schwartzburg with the Thuringian forests in the background. 2. A hilly country in Thuringia.

The northern edge of this plain has sunk beneath the ocean and two deep depressions in it are now occupied by the North sea and the Baltic sea. It is supposed that before the plain was depressed the British Isles and Norway and Sweden were joined to the mainland. The higher parts of the sunken mountain ranges projecting above the water form the thousands of **islands** which are scattered along the shores of Great Britain and Norway. The more level parts of this sunken coast are the **fishing banks** of northwestern Europe, which are excelled only by those of Newfoundland, and which give employment to thousands of men and ships. By the sinking of the coasts the valleys along them became **inlets**, or **fiords**, many of which extend far inland forming excellent harbors. Many of these fiords along the coast of Norway are walled in by steep and lofty rocks over which tumble swollen streams, forming a type of mountain scenery indescribably grand.

**Changes in Surface Level; Glaciers and Coal Beds.** — The effect of a rise in the surface of the land is to make the climate colder; oppositely, a subsidence makes the climate warmer. The surface of Europe has undergone many changes of level, which have had important effects in fitting it to be the home of man. In very ancient times a large part of the Central plain, as well as small areas in other regions, was depressed, forming great swamps in which vegetation grew luxuriantly. In the course of many centuries vegetable matter accumulated in these swamps to the depth of hundreds of feet. Afterward these areas sank still lower, becoming inland lakes, and the vegetable matter was covered to a great depth by the sand and gravel brought down by the streams which poured into them. The pressure of this overlying mass and the heat of the interior of the earth converted the decayed vegetable matter into coal.

Afterward the surface of the continent was raised and parts of it in the north became covered with a great glacier, or ice sheet. The ice moving southward filled up the North sea and the Baltic sea and overspread a large part of Russia and Germany. The glacier brought with it soil and rock broken from the mountain sides or scraped out of the valleys along which it passed. This material, called glacial drift, was spread on the land when the ice melted and helped to form the fertile soil of the northern part of the Central plain. Often the drift would obstruct the streams, forming lakes thousands of which are found in Russia, Norway, Sweden, and the British Isles. We may thus see that the glacier had much to do in fitting the surface of the continent for the home of man.

**Climate.** — Owing to the nearness of the ocean and to the numerous inland seas as well as to the prevailing winds and the nature of the surface, the climate of Europe, when the same latitudes are considered, is in contrast with that of any other continent. There are no mountain ranges running parallel with the ocean to cut off the moisture, and hence there are no arid areas in the interior, as in the other continents. Northern and central Europe lie within the region of the westerly winds. These winds, laden with warmth and moisture from crossing the Atlantic ocean, traverse the continent north of the primary highland system. As the winds at this latitude are not intercepted by high mountains, they give up their mois-

MAP STUDIES. — (1) Between what degrees of latitude does Europe lie? Trace the prime meridian across the map of Europe. What countries are partly in west longitude? (2) What division of land is Europe? Which continents are nearest Europe? Write the names of all the boundaries on an outline map. Name five straits on the borders. Name the peninsulas projecting from Europe west of 30° east longitude. (3) What four capes on the western coast? What cape in the extreme north? Which countries have the greatest extent of seacoast? Which are inland? (4) Locate and give

NORWAY AND SWEDEN; DENMARK. — (1) What waters partly surround Norway and Sweden? Which is farther north? What is length of each in degrees from north to south? In miles? (2) What mountains separate Norway and Sweden? Compare the surface of these two countries. The coast lines. Which has the most lakes? What has caused the formation of these lakes (see *page* 17)? (3) Which country is the larger? How does each compare in size with Great Britain? How does each compare in size with your state? (4) On an outline map locate and name the capitals and leading cities of these two countries. How do you account for the absence of any long rivers? (5) Describe the location of Denmark, both on the continent and in latitude. What country borders it on the south? What countries of Europe are smaller than Denmark? Compare it with your state in size and population. (6) Where are the Faroe islands? Iceland? What is the capital of Denmark? What is the capital of Iceland? (7) What is the approximate distance in miles between the capital of Denmark and the capital of Iceland? In what general direction and over what waters would a vessel sail in going from Copenhagen to Reikiavik?

EASTERN EUROPE. — (1) Between what parallels of latitude does Russia lie? What do you infer from this in regard to its climate? Compare its area with that of the rest of Europe. Compare with the United States in size (see APPENDIX, *page* ii). What part of the people of Europe live in Russia? (2) Name the five seas bordering on Russia. Name a river flowing into each of these seas. Trace each of these rivers to its source. Near what city do they rise? What hills near this city? What countries on the western border of Russia? What mountains in the east? In the south? What countries of Asia border Russia? (3) Name five seaports and tell on what water each is located. In what part of Poland are Warsaw and Lodz? Describe the location of Kief (*kē'-yĕf*), Kazan, Tiflis, Baku, Nijni Novgorod, Helsingfors, Wilna, Kharkof, and Ekaterinburg. On an outline map of Russia locate these towns. On the same map locate the rivers and the bordering waters and countries. (4) Name all the bodies of water on which a vessel would sail in going from Odessa to Petrograd. From Archangel to Liverpool. From Venice to Hamburg. (5) Find the distance by rail from Paris to Berlin.

ection of the following mountain ranges: Alps, Pyrenees, Kiolen (*kyō'-len*), Carpathian, Apenes, Caucasus, and Ural. Where are the Valdai Hills? What rivers rise among them? What rivers e in the Alps? Locate mount Vesuvius; mount Etna; mount Blanc. Name four lakes in Europe.

Make a list of the countries of Europe in order of size (see APPENDIX, *page* ii). In a column posite the name of each country write the name of the capital, and in a third column the name of chief city of each country.

ture very gradually, so that nearly all parts of Europe receive enough rain for successful farming.

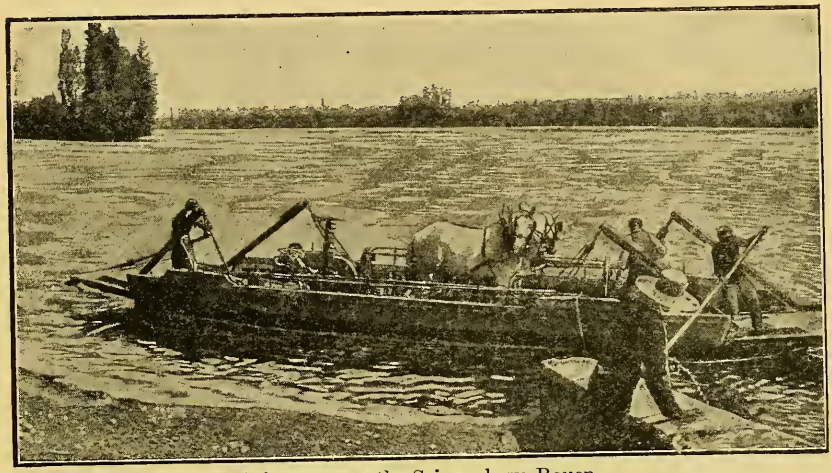
The **coast of western Europe** is also tempered by the warm waters of the Gulf stream, which washes the shores of the British Isles and Norway, keeping the harbors open all through the year, even at the extreme northern port of Hammerfest. Western Europe has a moderate temperature throughout the year; but as we go eastward the country suffers **extremes of temperature**. Even as far south as the Black sea the rivers and harbors are frozen during several of the winter months. An incident illustrating the severity of the Russian winter is furnished by the retreat of the French army under Napoleon from Moscow in 1812, when thousands of the soldiers were frozen to death. During the Crimean war also, which was fought in the south of Russia, so many of the English and French soldiers perished from cold that the Czar, Nicholas I, said that his best generals were General "January" and General "February." The reasons for this extreme cold are distance from the ocean, and the absence of mountains high enough to cut off the icy winds which in the winter blow from the Arctic region. The average annual temperature of southern Russia is about the same as that of New York City, though the extremes are greater.

Rainfall chart of Europe.

As the northern part of Russia lies beyond the reach of the westerly winds, it has long, cold winters and short summers. This section consists of **barren plains** and **tundras** with little vegetation except

the mosses and lichens upon which the reindeer feed. In the northern part of the Scandinavian peninsula, however, grains and vegetables may be grown far within the Arctic circle — much farther than in any other part of the world.

**Southern Europe** has a climate peculiar to itself. It is protected from the cold north winds by lofty mountain ranges, and the deep arms of the Mediterranean which project far inland temper the



A ferry across the Seine, above Rouen.

climate. During the **winter** the winds blow from the Mediterranean and bring heavy rains. But in **summer** the winds are from the north and the northeast, and hence are dry, having passed over the mountains. This is a great disadvantage to the farmer, who must irrigate his crops during the growing season. In summer there is little water in the rocky beds of the streams which in winter are swollen torrents. The winter floods are so violent that much of the land is washed away or made worthless by being strewn with rocky waste. Along the Mediterranean coasts of France and Italy there are many delightful spots where the vine, the olive, and the mulberry tree flourish throughout the year.

**Rivers and Lakes.** — Owing to its smaller area, Europe has no rivers equal in length and volume to those of the other continents; but on account of the general rainfall and the gentleness of the slopes the European rivers are well distributed, and many of them are navigable nearly to their headwaters. The **watersheds** between the rivers are so low that **canal-building** is carried on to a greater extent than in any other continent; all the large rivers are connected, and it is possible to go by water from the Black sea to the Baltic, and from the North sea to the Mediterranean.

The **lakes** of Europe are numerous, especially in the northern parts, and many of them are noted for beautiful scenery. The larger lakes are found chiefly in **three regions.** The first group is in Russia and Sweden, lake Ladoga, the largest in Europe, is nearly as large as the state of Massachusetts, Onega and Wener are next in size. The second lake group is in Switzerland and Italy. The third group lies in Germany, north and east of the Elbe river. Many of these lakes are remarkable for having no outlets. The groups of larger lakes form important links in the canal connections of the country.

**Plants and Animals.**— The plant life of Europe as elsewhere corresponds closely to the conditions of soil, heat, and moisture. South of the frozen tundra region of mosses and lichens are vast belts of soft-wood **forests**, extending through Norway, Sweden, and Russia. In the dry regions of the central plain are found vast tracts, or **steppes**, covered with coarse grass and scattered shrubbery. In southern and central Europe the mountain sides and the plains near them have extensive forests of both hard and soft woods. Among the **soft woods** are the pine, spruce, fir, and cedar, among the **hard woods** are the oak, ash, elm, willow, and chestnut.

The plants of the Mediterranean countries differ from those of the rest of the continent, being suited to withstand the dry summer climate. The trees are mostly low and have thick and leathery leaves which prevent the loss of moisture. Among them are the holly, the holm oak, the laurel, myrtle, orange, and the olive. Thick fleshy plants resembling the American cactus and aloe are common. The **cork oak** is characteristic of the Iberian peninsula and the mulberry tree of southern France, Italy, and Greece. Among cultivated plants the grains are first in importance.

Some Animals of Europe.

Wheat, rye, oats, and barley are grown throughout the central plain and in the fertile river valleys. Flax, the vine, and the sugar-beet rank next in value to the grains. Southern Europe is famous for its oranges, lemons, and olives.

With the exception of the wolf, no dangerous wild animals are to be found in Europe. The **reindeer** and even the **bear** have been tamed, although some species of these animals as well as the lynx are found wild in Norway and Sweden. Among the Alps is found the **chamois** and in the island of Crete the **ibex**, both of which are species of wild goats. In the forests of northern Russia, the fox, ermine, marten, and sable — valuable **fur-bearing animals** — are trapped and hunted. In most of the countries of Europe extensive tracts of land are set aside as game preserves for the pleasures of the hunt.

**Industries and Products.** — The occupations of the people depend upon the natural wealth and conditions of the country in which they live and upon their knowledge and skill in making use of them. The leading occupations of the people of **northern Europe** are manufacturing and trading, though they are also skilful farmers and experts in stock-raising. In the nations of **southern Europe**, where the climate is sub-tropical, the people are more generally engaged in farming and in the cultivation of the silkworm, the vine, the olive, and fruits. In **eastern Europe** the conditions of soil and climate are such that thousands of the inhabitants make a living by tending herds of cattle and swine.

The most valuable product is **grain**; yet we do not think of Europe as a grain-producing country. This is because she has none to sell; her own population requires all of it. She has not land enough to support so many people without other industries than farming. Europe supplies the markets of the world with fine woolens, silks, velvets, ribbons, and laces, watches and jewelry, fine gloves, shoes, and millinery; so we think of Europeans as manufacturers. Wine, raw silk, olive oil, and fruits we associate with the countries of southern Europe.

The manufactures and commerce of Europe exceed those of all the rest of the world combined. Europe has also a vast amount of stored-up wealth with which to carry on her industries, and skilled workmen who are trained from youth to do a certain thing in the best possible way. The **commerce** of Europe consists mainly in the exchange of manufactured goods for raw materials and foods.

**Cities.** — Europe is famous for its great cities. It contains **Lon-**

**don**, the largest city in the world, **Paris**, the most attractive city, and **Rome** and **Constantinople**, famous for their historical associations.

**Transportation and Commerce.**—Europe is better provided with means of transportation by water than any other continent. This is because of the extensive **coast line** and the great number of **navigable rivers** that intersect the continent, and because her people have improved the navigation of the rivers, and connected them by

**canals**. Freight can thus be distributed very cheaply to all parts of the continent. There are many **railroads**, but they are used more for carrying passengers than freight. Trunk lines connect the great cities of Paris, Berlin, Vienna, Petrograd, and Constantinople. Through express trains are run between these points, and also from Paris to Rome and Madrid. At Petrograd the great trans-Siberian line begins, the eastern terminus of which is at **Vladivostok** on the Pacific ocean; this railroad has developed Siberia. The Alps

are pierced by seven tunnels, affording quick communication between the surrounding countries.

In most European countries the railroads are owned and managed by the government and not by private companies and corporations as in the United States. In the older countries of Europe there are excellent public highways. Some of these were built in the old Roman days as military roads and others have been built in modern times for military purposes. Many of these roads, especially those in mountainous districts, are of the most elaborate construction.

Warwick castle, one of the most famous of English medieval strongholds.

**Religion and Government.** — With the exception of the Mohammedan Turks, all the nations of Europe profess the **Christian religion.** The majority of the people of the Latin and Slavonic nations are Roman Catholics, while most of those in Russia and the eastern nations belong to the Greek Catholic church. The majority of the people of the Teutonic countries are Protestants.

**Government.** — Europe now has eleven republics and thirteen constitutional monarchies, some of which are virtually republics, although the head has the title of king.

QUESTIONS AND TOPICS. — (1) Who first visited Europe? Describe its location. Name its boundaries. Why is Europe an important continent? What are the three leading races of Europe? Name some of the other races. (2) What were the Middle Ages? What inventions helped the progress of the nations of Europe? In what way did each help? (3) How does the surface of Europe resemble that of the other continents? Where is the older mountain system found? How does it differ from the younger, or loftier system? Name and locate five ranges of the principal system.

What are the two highest peaks? What is said of the scenery of the Alps? Where is the region of volcanoes and earthquakes? What two great disasters have happened in this region? (4) How does the central plain vary in width? What are its natural resources? Why do we think the northern edge of the plain has sunk? What are the results of a sunken and mountainous coast line? (5) How does a change in elevation affect climate? Explain the way in which the coal beds were formed. What are glaciers, and how have they affected the surface of Europe? (6) How do you account for the moist and mild climate of Europe? Which parts have the greater amount of rain, and why? Why is the winter colder at Odessa than at Hammerfest? How is the climate of southern Europe affected by the mountains? Why does it have more rain in winter than in summer? (7) What conditions of surface and climate make the rivers of the continent navigable? Why have so many canals been built in Europe? Where are the lakes? Which is the largest? (8) Locate the three distinct regions of plant life in Europe. Why do the plants of the Mediterranean region differ from the rest? Name the chief cultivated plants of the continent, and tell where each is found. (9) Name the two most noted cities of Europe. Why is Europe well adapted to commerce? What has encouraged the growth of manufactures in Europe? What religion prevails among each of the races in Europe? What is the usual form of government in European countries? What republics are found?

# CHAPTER II

## THE BRITISH ISLES

Answer the questions on THE BRITISH ISLES, *page* 30.

**Position, Size, Importance.** — The British Isles lie off the northwest coast of Europe. They are separated from the mainland by the **strait of Dover**, which in its narrowest part is only twenty-two miles wide. This narrow but stormy and dangerous passage has served to protect the island empire against invasion during the many wars which have embroiled the continent, thus aiding it to develop into one of the mightiest nations of the world. The **insular position** of the British has made them a race of sailors and traders; the natural resources of the country have led to the growth of farming, mining, and manufacturing; and the physical and intellectual activity of the people has made the country a center of wealth, education, and culture.

The British Isles consist of two large islands and hundreds of smaller ones. These islands, as we have learned, were separated from the mainland of Europe by a sinking of the coast. The mountain tops became the islands, the valleys the firths, or inlets, and the

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BRITISH ISLES. — (1) In what direction from us are the British Isles (see *page* 178)? In what direction from the mainland of Europe? What country of Europe is nearest to them? What waters separate them from Europe? (2) Name the waters surrounding Great Britain. What waters separate it from Ireland? On which coast of Great Britain do you find the greatest number of islands? What island in the Irish sea? Where are the Orkney islands? The Shetland? The Hebrides? Where are the Channel islands? (3) What three countries compose Great Britain? Which of these is the most mountainous? What part of England is mountainous? What mountain peak in Wales? In Scotland? (4) Name the largest two rivers in England. What is the chief river of Ireland? Where is the Tweed? The Clyde? The Humber? What firths on the coast of Scotland? Which of these are connected by a canal? (5) Locate the following cities: Glasgow, Edinburgh, Aberdeen, London, Manchester, Liverpool, Birmingham, Bradford, Leeds, Sheffield, Cardiff, Dublin, Belfast.

Williams Engraving Co., N.Y.

mouths of rivers the estuaries, which form excellent harbors. The total **area** of The United Kingdom is about 121,000 square miles, making it eighth in size among the countries of Europe. It has a population of about 42,000,000. But the importance of the British Isles is not measured by area, for the British have colonized and developed and now control more than one fifth of the land surface of the globe. Fully half the merchant vessels afloat are British, and her navy is maintained at a strength equal to twice that of the next strongest nation.

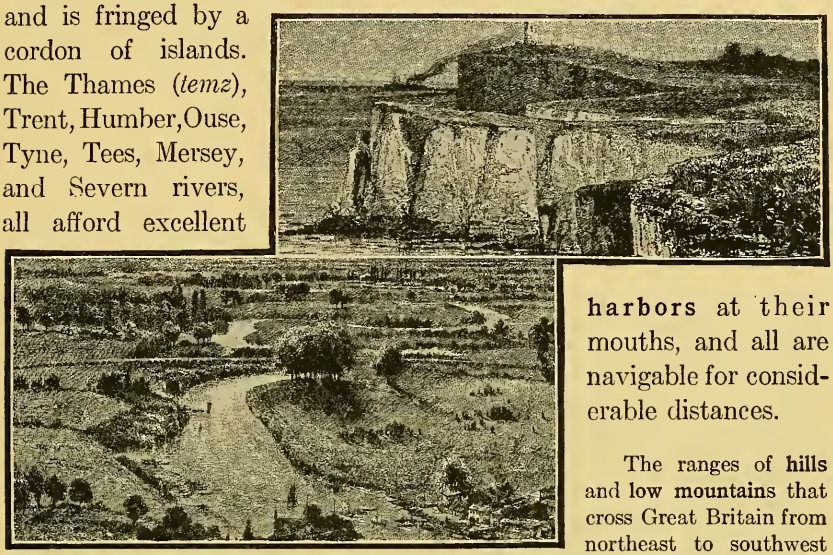
One reason assigned for the preeminence of Great Britain as a commercial and colonizing nation, is its **central position** in the land hemisphere of the globe. A circle drawn around London with a radius of 6,000 miles would include the greater part of all the continents. England has a short route to the Indian ocean and the countries of Asia by way of the Mediterranean sea and the **Suez canal**, and the completion of the Panama canal will give her a short water route to the Pacific ocean and the eastern coast of Asia. But position alone does not explain England's high place among the nations, for both France and Spain are nearer the center of the land hemisphere than she. It is due also to her enterprise and skill in planting and fostering **colonies** and to the liberal manner in which she governs them. In these points both France and Spain have failed.

**People and History.** — We have already learned (*page* 11) how the **Angles** and **Saxons** conquered the Romans and Celts, whom they found in Britain, and gradually built up the kingdom of England. In 1066 came the **Norman Conquest**, as a result of which the French language, laws, and customs became established in England. Gradually the two languages blended, and so it happens that our tongue to-day is a mixture of English and French words.

The **Norman kings** and those who succeeded them were able rulers and made England one of the leading European states. When a Scottish king inherited the throne of England he united the two kingdoms of England and Scotland. Ireland was added in 1801, thus forming "**The United Kingdom of Great Britain and Ireland.**" Thus the people are a mixture of races — Celtic, Roman, Saxon, Dane, and Norman. But the language, laws, and customs are prevailingly English.

**Surface and Outline.** — The British Isles in general outline form an equilateral **triangle**, with the apex pointing approximately north.

They lie entirely north of the most northern latitude of the United States. The western coast is more **deeply indented** than the eastern, and is fringed by a cordon of islands. The Thames (*temz*), Trent, Humber, Ouse, Tyne, Tees, Mersey, and Severn rivers, all afford excellent **harbors** at their mouths, and all are navigable for considerable distances.



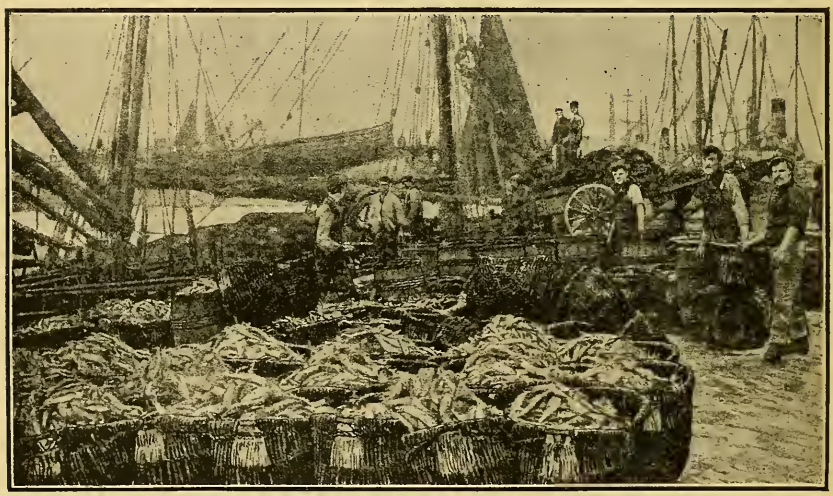
The chalk cliffs of Dover and the upper valley of the Thames.

The ranges of **hills** and **low mountains** that cross Great Britain from northeast to southwest bear the marks of great age. The most northerly of these, the Grampian hills, contain Ben-Nevis, the highest mountain on the island. These ranges are deeply worn, and rounded and covered with vegetation and forest. Exposed cliffs and rocks have been scratched and polished by the glacier (*page* 19).

**Climate of the British Isles.** — The climate has been partly described in the account of Europe. The high latitude of the country gives it very long **days** and short **nights** in summer and the opposite in winter. In northern Scotland the sun in summer is below the horizon only a few hours each day, and there is light enough to read at midnight. In the high altitudes the winters are cold; but the warm westerly winds so temper the **climate** that in no part of the country is the weather at any season either too hot or too cold for out-door employment. Two days out of three throughout the year the southwesterly winds bring abundant **rainfall**. This is heaviest on the western coast and in the highland regions, but in every part

of the country the rainfall is sufficient for the needs of the farmers. As weather signals from over the ocean are not despatched as yet, heavy **storms** often fall without warning, bringing danger to the sailor and doing damage to shipping. Dense **fogs** often prevail in the large towns during the winter season.

**Fishing Industries.** — The surrounding waters teem with fish of many kinds. Cod, haddock, and herring are found in the North sea, and on the banks off the Norway coast; salmon ascend the rivers of northern Britain, and oysters and pilchard, a kind of herring, are taken on the southern coast. The flat fish, or sole, is common. The

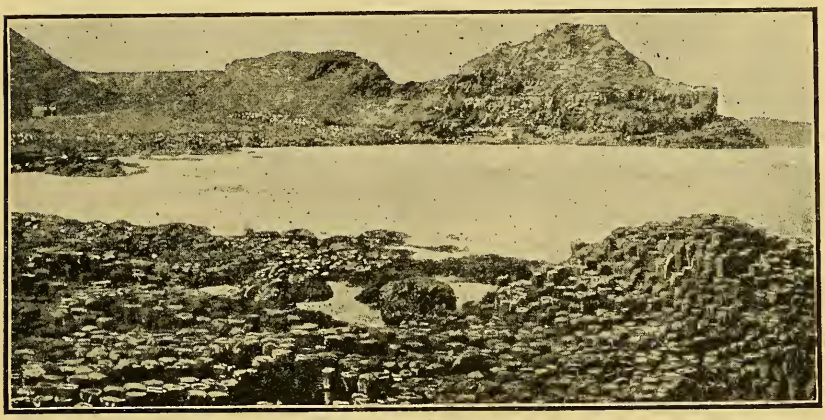


Landing a herring "catch" at Lowestoft.

**fishing industry** was formerly conducted from numerous small hamlets, and many of these are still flourishing on the Scotch and Irish coasts, but the business is now mainly concentrated in large towns by companies who have capital to fit out vessels with expensive equipments. Hull, Yarmouth, Lowestoft, Grimsby, Wick, and Aberdeen are the chief fishing ports.

## IRELAND

**Location and Surface.** — The waters which separate this island from Great Britain are shallow, but on the west the ocean floor slopes rapidly to a great depth. The area of Ireland is about 32,000 square miles, and its population nearly 4,500,000. Because of its **location** it gets the full influence of the warm winds from over the Gulf Stream, which contribute to its mildness of climate and fertility. Ireland is an expanse of green meadows and brown bog land, surrounded by a rim of low mountains. The **mountains** are highest on the northern and southern borders, and the ridges have the northeast and southwest trend common to the entire highland system of



The Giant's Causeway.

northwestern Europe. The principal river is the **Shannon**, which is navigable throughout nearly its entire length. The interior plain contains many **lakes**. The lakes of **Killarney** in the southwest, embosomed in green hills and dotted with islands, are famed for their beauty, and are much visited by travelers.

On the northern coast of Ireland is the **Giant's Causeway**. It consists of three tongues of rock running out into the sea overlaid with vertical columns of basalt forming a road by a series of stepping stones nearly to the opposite shore. These

columns were formed from the lava of some ancient volcano that crystallized into regular prisms with their sides so closely joined that a knife blade cannot be inserted between them. The bog lands furnish abundant supplies of peat, which is quarried out in blocks, dried, and used for fuel. Peat is decayed and partially hardened vegetable matter and represents one stage in the formation of coal.

**Climate.** — Ireland is warmer and moister than any other part of northern Europe. The island keeps perpetually green, and on this account it has received the name " Emerald Isle." About one half of

Irish jaunting car and cottage.

the area being pasture land, a leading occupation is the raising of cattle, horses, sheep, and swine. **Potatoes** and **oats** are extensively cultivated and supply staple articles of food. Much **flax** is grown in the north. The preparation of the fiber and the weaving of linen are the most flourishing occupations in Ireland.

The superior quality of the Irish linens is said to be due to the waters. The stalks of flax are laid in water until the woody part separates from the fiber. This process is called *retting*. The fiber is then removed from the stalk and combed, or *hackled*, to separate the short fiber, or tow, from the long fiber. This must then be split and combed into finer threads preparatory to spinning.

Besides the linen manufactures there are, in Belfast, several large

**ship-building** plants, which turn out annually from fifteen to twenty steel vessels. Other industries are the making of **cordage** and the distilling of **liquors.** On account of the scarcity of coal and iron, manufacturing is confined to the eastern coast where fuel can be cheaply transported from England.

City Hall, Belfast.

**Cities and Trade.** — The leading Irish seaports are **Belfast** and **Dublin. Queenstown** on the southern coast is a calling port for Atlantic steamers. Wheat and corn are imported directly into Dublin, Belfast, Cork, Londonderry, and other Irish ports, but linens are exported by way of Liverpool and Glasgow. Cattle, swine, and butter are sent direct by coasting steamers to many British ports.

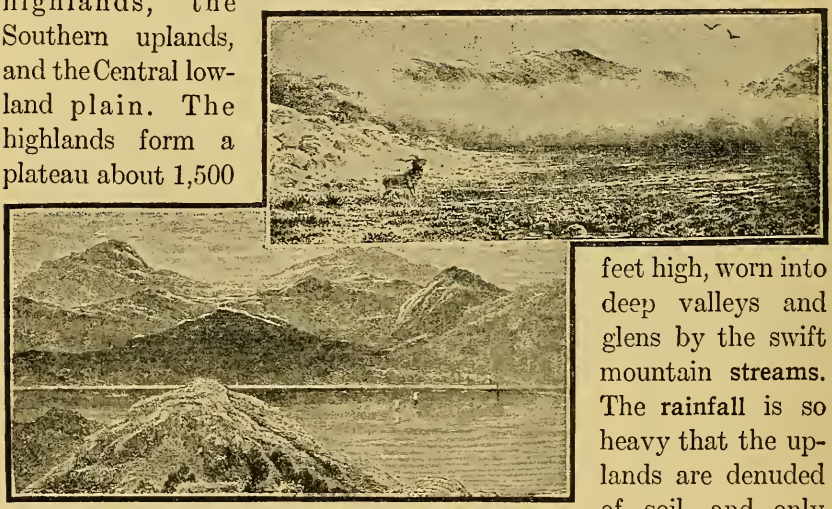
## SCOTLAND

**Location, Size, Coast.** — This country occupies that part of the island of Great Britain lying north of the Solway firth and the river Tweed. It is about one half the **size** of England and Wales, and the **population** is a little less than that of Ireland. It is remarkable for its mountainous **surface,** numerous lakes, and the extreme irregularity of its coast line. It is bordered on the west by a great number

of rocky **islands**. On the north are the Orkney islands, and the Shetland group, famed for its stout breed of shaggy ponies. Both groups are the home of a large fishing population. At two points the country is so nearly cut in two by deep inlets that **canal communication** has been established between the eastern and western coast.

The most remarkable feature of the island scenery of Scotland is **Fingal's Cave** on the island of Staffa. Its entrance is a gigantic arch supported by hundreds of columns of glistening volcanic rock. The cave runs a long distance under the rocks, and boats may sail the entire length of it. The continual ebb and flow of the tide tends to deepen the cavern.

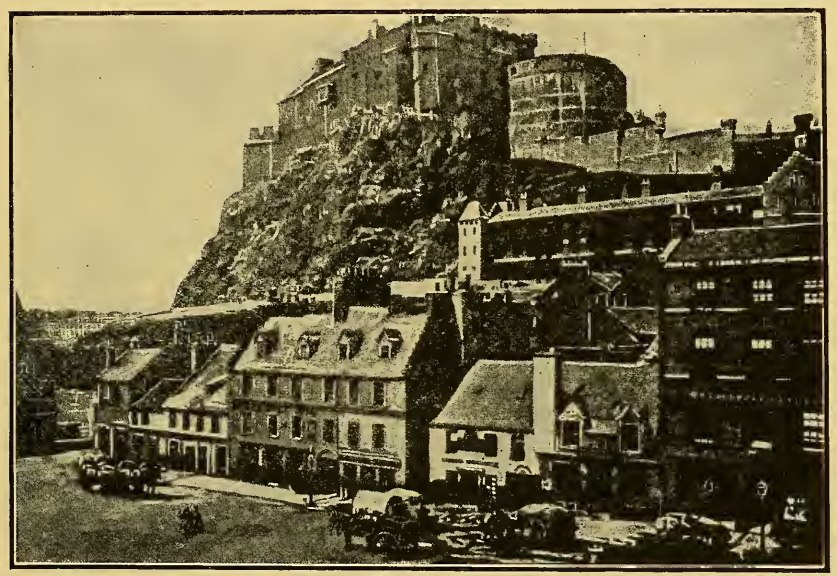
**Surface.** — Scotland has three **natural divisions**: the Northern highlands, the Southern uplands, and the Central lowland plain. The highlands form a plateau about 1,500 feet high, worn into deep valleys and glens by the swift mountain **streams**. The **rainfall** is so heavy that the uplands are denuded of soil, and only coarse rock waste and stones are left, which support a scant vegetation of moss and heather. It is only in the lower valleys that there is profitable **farming**. The highlands themselves are useful only for grazing, and have a small peasant population. The greater part of the country is set apart as game preserves which are owned and maintained by wealthy men. A valuable kind of granite is quarried in the region of the Grampian hills.



A moor and a lake in the Scottish highlands

The **Scottish Highlanders** are descended from Celtic tribes from Ireland. For many centuries they maintained their organizations, each clan under the rule of a chief who was the leader in war, for they were perpetually at war with one another and with their lowland neighbors, who were Saxons.

A rich **soil** and vast deposits of **coal** and **iron** have made the Central lowlands the home of more than one half the population of Scotland. Three important **rivers** drain this section: the Clyde, the Forth, and the Tay. The mouth of each river is an estuary, and the



Edinburgh Castle, the residence and stronghold of the ancient Scottish kings. Its summit is 300 feet above the level of the street. Part of the castle was used as a state prison.

canal connecting the Clyde and the Forth affords cheap **communication** between the two largest cities. The "firths" of the Tay and the Forth are crossed by splendid bridges, each over two miles long — the longest of the kind in the world.

The Southern uplands average about 1000 feet in elevation, being twice the height of the lowlands. They are a thickly-settled pastoral

region. The Cheviot hills which cross this section have given their name to a breed of sheep and to a special cloth made from their wool.

**Industries and Cities.** — The people of northern Scotland are engaged chiefly in farming, herding, and fishing. But the rich coal and iron deposits of the Central lowland have given rise to a variety of manufactures. **Glasgow** is the second city in size in the United Kingdom, and the chief manufacturing city of Scotland. It extends along both banks of the Clyde river for about twenty miles. Among its more important manufactures are steel ships, locomotives,

High street, Dundee.

machinery, and iron work of every sort. Of less importance are its chemical works, potteries, and textile industries. It is the seat of a great university. **Edinburgh** (*ed'-in-bur-o*), the capital of Scotland, is noted neither for manufactures nor trade, but for its beauty and fine location. Its streets are tastefully laid out and the buildings are remarkable for grandeur and architectural taste. Edinburgh is famed for its university and medical school, and for its printing and publishing establishments.

The seaport of Edinburgh is **Leith** (*leeth*). West of Edinburgh is **Stirling** near which was fought the **Battle of Bannockburn** which preserved the independence of Scotland. Another important Scotch city is **Dundee** on the firth of Tay. It has extensive manufactures of flax, hemp, and jute, and is the only town in the United Kingdom from which whaling fleets are still sent out. The jams made in its factories are famous.

## ENGLAND AND WALES

**Location and Surface.** — Southern Britain, consisting of England and Wales, is separated from Scotland by the line of the **Cheviot hills**. Its area is over 58,000 square miles and its population about

A country lane and cottages in England.

33,000,000. It may be divided into highlands and lowlands by a line drawn from the mouth of the **Tees** to the mouth of the **Severn**. The **Pennine chain** forms the backbone of the highland system, extending from the Cheviot hills south into the heart of England. It forms the watershed between the Irish and North seas. Its southern end is the high ground between the basin of the Trent on the east and the Cheshire (*chesh'-ir*) plain and the valley of the Severn on the west. South of the Severn are several lines of hills extending east and west, and forming the watershed between the **Severn** and the

**Thames.** The Pennine chain is bordered by a broad belt of upland or moorland which has long been noted for stock-raising and agriculture. In these highlands are found the chief **coal regions** of England.

The **Pennine highlands** and the surrounding **central plain** are the most thickly settled part of Great Britain and the seat of her chief manufactures. Here are the **large cities** of Manchester, Leeds, and Bradford, as well as a hundred other smaller towns engaged in the manufacture of cloth and of the machinery and supplies used in the factories. In the southern part of the Central plain and in the very center of England are Birmingham (*ber'-ming-am*) and other towns where iron, steel, and metal work of every description are made. Both coal and iron are mined close at hand, and the smoke that ascends from the hundreds of furnaces and factories has given this part of England the name of the **Black Country.**

The **Lake District** is the name given to the peninsula between Solway firth and Morecambe (*mor'-cam*) bay. It is a rugged highland region, carved into deep valleys by the glacier. The highlands are called the **Cumbrian mountains.** Some of their peaks exceed 3,000 feet; **Scafell** (3,200 feet) is the highest point in England. The valleys contain long and very narrow **lakes.** The Lake District is a favorite resort for lovers of beautiful scenery.

**Southeastern England** has, on the whole, a level, or gently rolling surface. The wide stretches of level plain are called **downs,** and are noted for the beauty of their scenery. The soil on the downs is thin and underlaid by chalk rock; it is not fertile and is devoted to pasturage. The " South downs " have given their name to a famous breed of sheep. But the greater part of southern England consists of undulating **plains,** diversified by hill and valley. Well-kept cottages and farms thickly dot the landscape. The cultivated **fields** are separated by hedgerows, and every foot of ground is used. Even the lanes and roadsides are planted with vegetables and flowers. The houses are usually of stone, and many are overgrown with ivy or surrounded by flowers.

All the land in England was once divided into **large estates** and granted by the king to those of his lords and gentlemen who had served him best. Many of these estates, sometimes embracing thousands of acres, with their stately mansions are still to be seen in various parts of England.

**Wales.** — West of the Central plain is the district of Wales, comprising the peninsula between the river Dee on the north and the Severn river and Bristol channel on the south. Wales has an area of a little more than 7,000 square miles; and its population is about 1,500,000. The country is ridged from north to south by the **Cambrian mountains**, the highest peak of which is mount **Snowden** (3,570 feet). The coast line, though rugged and picturesque, has few good **harbors**. The fiord inlet of **Milford Haven** is the only good natural harbor on the coast. On the northwest is the historic island of Anglesey. The Menai strait which separates it from the mainland is about a quarter of a mile wide, and is spanned by two fine bridges, one a suspension bridge and the other a tubular bridge. The entire country is mountainous and rich in mineral wealth. Among the important minerals are **salt, lead,** and **zinc**. In the north are extensive quarries of slate; in the south is the most valuable **coal field** in Great Britain, covering an area of a thousand square miles, and furnishing the coal which is exported from **Cardiff**, the largest coaling port in the world. Besides the coal trade, it has important manufactures of iron, and of tin plate. Artificial harbors and enclosed docks have been constructed at Cardiff where the largest vessels may load and unload protected from the high tides of the Severn estuary. The second city of Wales, **Merthyr Tydfil**, has grown up on the northern edge of the coal field. Its iron works are nearly two centuries old, and are the leading industries of the town. **Swansea** (*swan'-sî*), the second port in importance, is engaged in the smelting of copper ore and also in the manufacture of tin plate.

A mountain valley in North Wales.

The **tin plate industry** is one of the greatest in Wales, nearly all the towns and villages in the southern part being engaged in it. The tin was originally obtained from the Cornwall district, but since the exhaustion of those mines it has been imported from Singapore.

**Farming and Stock-raising.** — England is better known for its fine breeds of cattle, sheep, and horses than for its crops. About two thirds of the available land is given to **pasturage**, and one third to **agriculture**. There are several **reasons** for this: first, there is a great deal of mountain and moor land which is either too rough or too poor for profitable crops; second, the mild and moist climate is favorable to the growth of grass, and the animals can be pastured nearly the whole year; third, grain can be brought so cheaply from the ports of Canada and the United States. It may be added that the native mutton and beef command a higher price than that brought from abroad, and that the great factories of Leeds and Bradford are always in need of wool. The Channel islands — Jersey, Alderney, and Guernsey — are known throughout the world for their dairy cattle. Throughout the entire kingdom about 30,000,000 sheep and nearly half as many cattle are pastured. The breeds of cattle named from these islands have become common in the United States.

Of **farm crops**, oats is by far the largest, with barley and wheat next. Root crops and other vegetables are also widely grown to furnish the immense supplies required for the large cities. Potatoes, beans, peas, and turnips are the most important. Fruit and vegetable farms are located near every large town and supply fresh " truck " of every sort. In some sections large crops of hops are grown, to be used with barley in the manufacture of beer and ale.

**The Textile Industries.** — The most important natural resource of Great Britain is coal, which is the basis of her manufacturing industries. Yet England was a great manufacturing nation centuries before the use of coal was discovered.

As early as Queen Elizabeth's time English merchants fitted out from fifty to sixty ships a year which distributed over 100,000 pieces of **cloth** to foreign countries. Thus English manufactures and trade had an early start. Up to the beginning of the nineteenth century, practically all manufacturing was hand labor done in the home of the workman. About that time three great inventions came into use

which led to the building of the great **factory towns** for which England is noted. These were the **spinning machines** by Hargreaves, Arkwright, and Crompton; the **power loom** by Cartwright; and the **steam engine** by Watt. Within twenty years after Cartwright's invention there were 350,000 power looms at work in Great Britain.

The making of **woven fabrics** is still the greatest industry in the United Kingdom. The factories employ over 1,000,000 people, and the annual product is valued at one thousand million dollars; textile goods form one half the entire **exports** of the country. Wool long ago yielded the first place to cotton, and the value of the cotton goods exported is now three times that of all other textiles combined. The cotton industries center about **Manchester** on the border of the Lancashire coal fields. Within a radius of twelve miles from Manchester Center there are sixteen large towns with a population of nearly 2,000,000, the working portion of which are engaged in the spinning and weaving of cotton. The moist climate is well adapted to cotton spinning. In a dry climate the fibers become brittle and do not hold together well when drawn into fine thread.

Manchester is connected by a ship canal with the Mersey river and the port of Liverpool, and seagoing vessels load and unload at her docks. Raw cotton and wool, cattle, grain, flour, and meat are brought from the United States and other countries, and manufactured goods are sent away to all parts of the world.

**Leeds** and **Bradford**, standing only eight miles apart, and the numerous small towns in their neighborhood form the chief center for the manufacture of woolens and worsteds. **Nottingham**, on the border of the great Yorkshire coal country, is the leading town for the manufacture of hosiery and lace; **Derby** and **Leicester** (*les'-ter*), in the same locality, have similar industries.

**Iron, Steel, and Machinery.**— With her rich deposits of coal and iron ore it is natural that England should make iron and steel products; moreover, all large manufacturing industries are dependent on these minerals for **power** and the materials for **machinery**. Because the transportation of coal is expensive, all the large manufacturing towns are conveniently located in or near the coal fields. Each

coal field has important industries according to the convenient supply of other raw materials.

**Newcastle** is the center of the most productive deposits of coal and iron in England. Its output of iron and steel is about 5,000,000 tons a year. It exports besides large quantities of coal and coke. The largest **battle-ships** and other steel ships are built at Newcastle. Machinery and chemicals are next in importance. Newcastle and other important ports at the mouth of the Tyne are known as the "Tyne ports." **Sheffield** is the oldest steel-manufacturing town in England. It has long been famous for its **cutlery**; but now steel rails, armor plate for battle-ships, and machinery are among its products. **Birmingham** is nearly as old in metal-working as Sheffield. The South Staffordshire coal fields supply its fuel.

City Hall, Birmingham.

At Birmingham beads, jewelry, watches, coins, buttons, bedsteads, bicycles, steam engines, and firearms of every description are among the articles produced. **Wolverhampton** near Birmingham is noted for its blast furnaces and manufactures of heavy iron goods.

In every manufacturing country the making of **machinery** and other **factory supplies** is necessarily a great industry. Thousands of mills must be equipped with complicated apparatus. Heavy machinery for working iron will be made near coal, iron, and lime deposits. Chemical and dye works will grow up near the centers of textile production. Great Britain is the largest producer and exporter of machinery and supplies used in manufacturing processes.

**Pottery.** — England has long been prominent in producing fine china-ware. Josiah Wedgewood discovered in 1763 a method of making fine pottery. Within his generation "Wedgewood ware" became famous, and fully 50,000 people were engaged in its manufacture. Pottery-making requires much coal for heating the ovens

in which the clay is baked after being molded; for this reason potteries are located near coal regions. The district south of the Mersey river, known as the **Cheshire plain**, is not only near the Lancashire coal region, but also has a variety of fine china clays. The part of the plain in the upper valley of the Trent is called "**The Potteries.**"

The growth of the **factory system** wrought important changes in the geography of Great Britain. The people had formerly lived in small villages, each workman owning a spinning-wheel, loom, or forge. But with the building of factories employing thousands of people, large cities grew up, and what had been the thinly settled part of England became the most densely populated.

**Mining.** — The mining interests of Great Britain employ nearly a million people, 700,000 of whom work under ground. The only minerals produced to any extent are **coal**, **iron ore**, **limestone**, and **pottery clays.** The value of these four articles amounts to eleven twelfths of the entire mineral product. Lead, tin, zinc, and copper are mined in western England and Wales, but the product is small.

The British Isles were known to the Greeks of olden times as the "**Tin Islands,**" and their ships and, later, those of the Phenicians and Romans visited the islands to obtain this metal. The ancient Britons worked the mines and brought the tin ore down to the coast to exchange for the tools, weapons, cloths, and ornaments which the strangers brought.

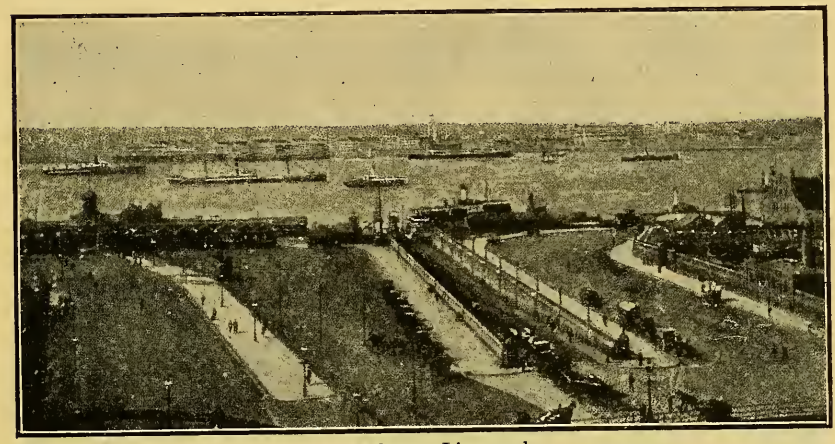
**Transportation.** — There are about forty thousand **vessels** sailing under the British flag in all parts of the world; of this number 15,000 are engaged in carrying goods between the home ports and the other ports of the world. So immense is the steamship traffic of the United Kingdom that an average of over 1,000 ships of all sorts enter her ports, and over 1,000 leave them every day in the year. About one third are ships from other countries. Within the United Kingdom are over 25,000 miles of steam and electric **railways** and 4,000 miles of **canals.** The canals are so planned that the rivers discharging on opposite coasts are connected at their heads of navigation. The Manchester-Liverpool canal is the most important because every canal in England has connection with it. It is 35½ miles long, and cost $75,000,000; it admits the largest steamers. **London** is the

chief railway center, from which city there is a direct trunk line to every other large city in Great Britain. **Birmingham** and **Manchester** also have important railway connections.

**Commerce and Seaports.**—The chief seaport of the United Kingdom and of the world is **London.** It is a city of about 7,000,000 people occupying a district fifteen miles by ten, lying on both sides of the river Thames, fifty miles from its mouth. Every one has heard of Regent street, the fashionable driveway; of the Strand, Piccadilly, and Cheapside, the business and shopping centers; and of Fleet street, the home of newspapers, book publishers, and literary men. Some noted places of interest in London are **St. Paul's Cathedral, London Bridge, Westminster Abbey,** the **Tower of London,** and the **British Museum.**

In the **value** of its **commerce** London is the first port in the world, though it ranks next below New York in the amount of goods handled. Its splendid harbor is the estuary of the Thames, which is 800 feet wide at London Bridge and six miles wide at its mouth. The Thames is lined with docks and wharves for a distance of twenty miles below the city. The greater part of London's trade is with the continent of Europe and with India, Hongkong, and other Asiatic colonies. This trade consists mostly of imports, and her markets regulate the prices of wool, tea, hides, and other *colonial* produce; while the prices of grain and cotton are fixed in Liverpool.

As a port **Liverpool** is only a little less important than London. Being near the great manufacturing cities, it receives the imports of foods, cotton, ores, and other raw materials from American, African, and Australian ports, and exports manufactured goods. **Hull** exports cotton and woolen goods and fish to the ports of northern Europe. **Newcastle** exports machinery and coal, in the export of coal it is exceeded only by Cardiff.



The harbor at Liverpool.

The best natural harbors of England are on the southern shore, but they have mainly an import trade, being too far from the manufacturing and exporting centers. **Southampton** is a calling port for steamers bound to the ports of continental Europe. Its exports are the largest of any port of the south of England, but form only one fiftieth of the total export trade. **Bristol** has a large import but a small export trade.

**Other Important Cities.** — Besides the seaports and the manufacturing towns which have been described, there are a score of others noted for one thing or another. **Greenwich** contains the royal observatory; its meridian is used as the starting-point in reckoning longitude. **Portsmouth** is one of the chief naval stations of England. **Oxford** and **Cambridge** are famous seats of learning; the former contains twenty-two colleges, the latter, eighteen. Some of these date from the twelfth century. Scattered through England are many towns of historical interest, noted for castles or cathedrals, or as the sites of decisive battles, or associated with some distinguished name. Such are **Stratford-on-Avon**, the birthplace of Shakespeare; **Winchester**, the old capital of Alfred the Great; and **Plymouth**, the port from which the Pilgrims sailed to America.

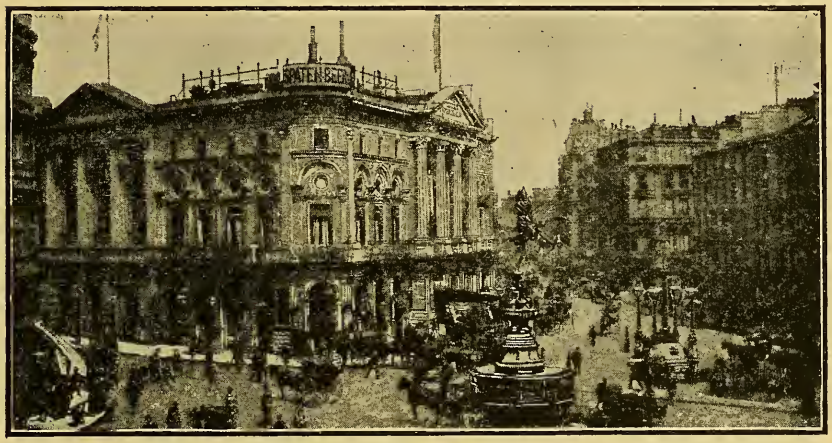
**Some Features of British Commerce.** — The commerce of Great Britain as well as that of the thickly settled countries of Europe generally is the opposite of that of the countries of the New World. Great Britain is a large buyer of **food supplies** and **raw materials** and a seller of **manufactured goods.** The American countries, on the contrary, *buy* manufactured goods and *sell* raw materials and food supplies. Let us notice the reasons for this difference. The average population in the western hemisphere is about ten to the square mile while that of England is over 550, and that of the United Kingdom considerably over 300. Besides, Great Britain is an old nation and has acquired great skill in certain lines of industry.

Rotten Row, the fashionable riding and driving thoroughfare of London. The name comes from Route du Roi, or King's Highway. In former times none but the families of kings were allowed to use this drive.

Both agriculture and manufacturing have been brought to a high degree of excellence; but there is limit to the amount of food that can be obtained from the limited acreage while the only limit to manufacturing is the accessibility of labor and supplies. Great Britain has an abundance of labor and has also an abundance of wealth; London is the **money center** of the world as well as the commercial center. Having both labor and capital the British require in addition flour, meat, sugar, and other food supplies for their swarming population; and cotton and wool and such other raw materials as their own country cannot furnish. These facts explain why Great Britain owns so many **ships.** She must bring food to her people and supplies to her factories. She must also maintain communication and trade with her colonies scattered in every part of the world. Her merchant vessels have established routes over which regular voyages are made. Her ships carry not only her own goods but distribute a large proportion of the goods of other countries lying along these routes.

Her colonies supply an enormous amount of freight. The wool and metals of Africa and Australia, the tin of the Malay states, and the coffee, fruit, and spices of the East Indies and Arabia, come to us in British ships. About one half the exports and imports of the United States, Portugal, and Holland and a large part of those of Russia, France, Italy, and Germany are carried by the merchant ships of Great Britain.

**British Colonies.**—As already mentioned, Great Britain has colonies in every part of the world, so widely scattered that it is said,



Piccadilly Circus, London.

"The sun never sets on the British flag." The following is a list of the British Colonies:

**Mediterranean.** — Gibraltar, Malta, and Cyprus.

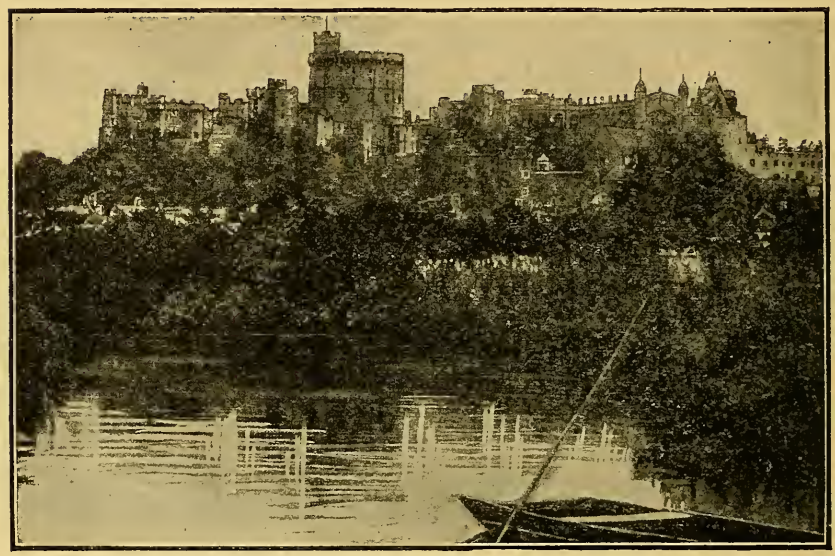
**Asia.** — India, Ceylon, Straits Settlements, Malay States, Labuan, Borneo and Sarawak, Hongkong, Wei-hai-wei.

**Australia and the Pacific.** — Australia, New Zealand, Tasmania, Fiji islands, Tonga islands, Solomon islands, Gilbert islands.

**Africa.** — Ascension island, St. Helena island, W. Africa, N. Nigeria, S. Nigeria, Gold Coast, Sierra Leone, Cambia, Rhodesia, Nyassa Land, Transvaal, Orange River Colony, Natal, Basutoland, Bechuanaland, Cape Colony, East Africa, Uganda, Zanzibar, Somaliland, Mauritius, and Seychelles.

**America.** — Canada, Newfoundland and Labrador, British Honduras, British Guiana, Bermuda, Bahamas, Turks and Caicos, Jamaica, Windward and Leeward islands, Trinidad, and Tobago.

These colonies, with the United Kingdom, constitute the British empire. Together they had, in 1915, an **area** of 12,808,994 square miles, and a **population** of about 439,734,060. Their total trade with the home country amounts to nearly $2,000,000,000 annually.



Windsor Castle, the present residence of British sovereign.

**Government.** — The government of the United Kingdom is a **constitutional monarchy.** This means that the power of the king is fixed by a body of laws and customs called the Constitution. The English Constitution is founded upon three important documents called **Magna Charta**, or the **Great Charter**, the **Petition of Right**, and the **Bill of Rights**, which the reigning kings granted to the people at different times, guaranteeing them certain rights and privileges. The customs and laws are also a part of the Constitution. The Parliament is the law-making body. It is composed of the **House of Lords** and the **House of Commons**. The first corresponds in general to our Senate, and the second to our House of Representatives. The

House of Lords is made up of nobles with inherited titles, and of the bishops and archbishops of the English Church who receive their appointments from the king. The House of Commons is composed of members elected by the people for a term of years.

The king chooses the **Prime Minister**, and the Prime Minister chooses the other ministers, from the political party which has a majority in the House of Commons. The **Ministers** may belong to either House. Laws are proposed to Parliament by the Ministry. If at any time the House of Commons refuses to support the measures introduced by the Prime Minister he must resign; or he may appeal to the King to order the election of a new House; but if the second House also refuses to support him, he must then retire. It will thus be seen that the people themselves have a powerful voice in making the laws.

A lighthouse at Plymouth.

**Colonial Government.** — The colonies are governed by various methods, the object of which is to give the people of each colony as far as practicable the right to govern themselves. Canada, Cape Colony, Australia, and New Zealand are practically independent; the smaller colonies and India are ruled by officers appointed by the Prime Minister.

In the first four colonies named the people elect a Parliament, or legislature, and the king appoints a governor who exercises his powers through ministers responsible to the Parliament. In many of the smaller colonies also the people have more or less power in making laws and in administering the government. The colonial governments are modeled as closely as possible upon the home government.

**Religion.** — There is entire **religious liberty** throughout the British Isles, all religious denominations being free to build houses of worship and to conduct services in their own way. In England and Wales the **Church of England** is the established church, and is supported by the income from church property and by taxation as well as by volun-

tary contributions. In Ireland the **Roman Catholic** is the prevailing religion, and is supported entirely by the contributions of the congregations. In Scotland the vast majority of the people are **Presbyterians.** Many churches are endowed or have property which partially supports them; but they depend for the most part on the free-will offerings of the people.

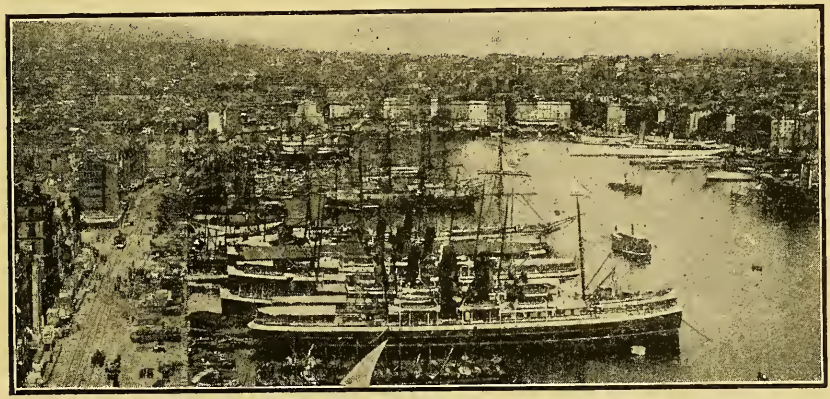
QUESTIONS AND TOPICS. — (1) What has been the effect of the position of the British Isles on their development? What do they comprise? What was the origin of the irregular coast? Compare size and population of the United Kingdom with that of the United States. How does its latitude compare with that of this country? What is the longitude of London? (2) What races have at different times occupied England? What five races have helped to make up the British people? (3) What line divides the surface of Great Britain into highlands and lowlands? What is the general direction of the hills and mountains? How is their great age shown? How have the glaciers changed the surface of the country? (4) How is the climate of the British Isles affected by the winds? What is said of the length of the days and nights? Which parts of the island have the most rain? Why do storms often come unexpectedly? (5) Surface and climate of Ireland? What natural curiosity along the coast? What are the chief productions of the island? Describe the preparation of flax. Why has the population of Ireland fallen off? Chief cities. Exports and imports. (6) What are the natural divisions of Scotland? Compare its area and population with those of Ireland? What is said of the coast line? What are the chief products of the country? Where is the most thickly settled section? What industries are carried on in this part? Describe the chief city of Scotland. Name and locate the other important cities. What can you tell of each of them? (7) Name and describe the highland regions of England. Surface of southeastern England. What is the "Black Country"? Describe the surface of Wales. Coast line. Harbors. Industries. Chief cities. (8) Why is stock-raising a leading industry in England? Where are grain and provisions obtained? What farm crops are most important? Why are fruits and vegetables extensively raised? (9) Leading textile industries and their location. What natural resources and what inventions have helped these industries? Location of the chief iron and steel industries? What is said of Birmingham and Sheffield? Chief mineral products of Great Britain? How is foreign commerce provided for? Domestic commerce? (10) Two leading seaports of Great Britain? Describe the trade of each. Name some characteristics of British commerce. Make a list of the leading cities of England, and state some important fact about each. What of the importance of the British colonies? In what continents are they located? (11) How are laws made in Great Britain? Colonial government. Religion.

# CHAPTER III

## FRANCE

Answer the questions on France, *page* 56.

**Location, Size, Population.** — France is now second in area among the countries of Europe, and ranks third in population. Its surface consists of **plains** and worn-down **highland regions**; in form, natural boundaries, and great extent of seacoast it resembles Spain. Its **location** gives it a mild climate, heavy



The Harbor of Marseilles.

rainfall, and excellent advantages for commerce. On three sides France faces the ocean. The North sea and the English channel give direct access to the northern countries; the Atlantic leads to the American continent; and the Mediterranean sea and the Suez canal afford the shortest route to the countries of southern Europe and the East. On each seaboard

France has good **harbors**: Dunkirk on the northeast, Havre and Cherbourg in the north, St. Nazaire (*san-nä-zâr'*), Brest, and Bordeaux (*bor-dō'*) in the west, and Marseilles (*mar-sālz'*) and Toulon in the south.

**Surface.**— The lowland plain of Europe extends across France diagonally, from the bay of Biscay to the northeastern boundary, and comprises more than one half the area of France. In the northwest are the highlands of **Brittany**, a series of hills separated by lowlands. The eastern and southeastern parts of France are mountainous. The main highland region is divided by the **valleys** of the **Rhone** and **Saone** (*sōne*) into a central plateau on the west, and towering highlands on the east consisting of the **Alps**, the **Jura**, and the **Vosges** mountains. The highest point in France and in the Alps is mount Blanc (15,781 feet). South of the central plain is the boundary wall of the **Pyrenees**, reaching an elevation of 10,000 feet. The **central plateau** slopes abruptly eastward and southward to the Rhone valley and to the Mediterranean plain, but to the north and west the

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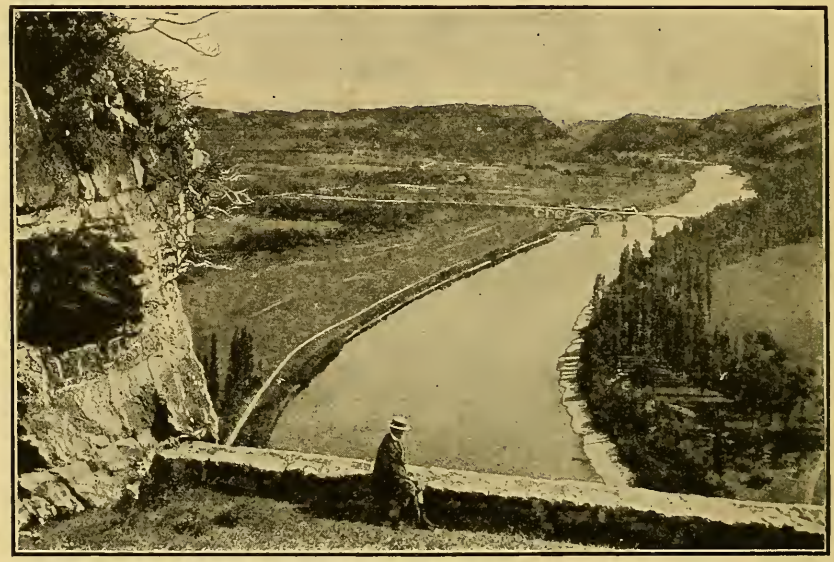
FRANCE. — (1) What country in America lies in the same latitude as France (see *page* 178)? How do these countries compare in climate? (2) What waters on the north of France? On the west? On the south? What countries form the southeastern boundary? The northeastern? What natural boundaries on the east? (3) Where are the highlands in France? The lowlands? What mountains on the eastern border? In which direction does the land slope from the central highland? What rivers drain the northern slope? The western slope? The southern slope? Name a city near the mouth of each of these rivers. (4) What is the capital of France? What city lies nearest to Great Britain? Locate the following cities: Lyons, St. Etienne, Lille (*lil*), Roubaix (*roo'bay*), Orleans, Limoges (*lē-mōzh'*), and Toulouse. On an outline map of France locate and name the boundaries, chief rivers, and largest cities.

SPAIN AND PORTUGAL. — (1) Describe the location of the Iberian peninsula in latitude and as a part of the continent of Europe. With what part of the United States does it compare in latitude (see MAP, *page* 178)? What cities in the United States in the same latitude as Madrid? (2) What is the general shape of Spain and Portugal? What proportion of the peninsula does Portugal occupy? Which country of Europe has nearly the same area as Spain? How does it compare in size with the United States? With your state? (3) What waters form part of the boundary of the Iberian peninsula? What mountains in the north of Spain? In the south? What is the general direction of the mountain ranges of Spain? Of the rivers? Name the five largest rivers of Spain and Portugal. Which one flows nearly east? Trace the dividing ridge between the sources of these rivers. In which direction is the longer slope? (4) What two cities of Portugal stand at the mouths of rivers? What islands east of Spain? What strait separates it from Africa? In what natural division of the country are the chief cities of Spain located? (5) On an outline map of this peninsula locate the chief rivers and the following cities: Madrid, Barcelona, Seville, Valencia, Granada, Lisbon, and Oporto.

10° Longitude West 5° from Greenwich 0° Longitude East from 5° Greenwich
ENGLAND
London
Bristol
Plymouth
Lands End
English Channel
Portsmouth
Dover
Dunkirk
Strait of Dover
Boulogne
Calais
Roubaix
Lille
Brussels
Antwerp
BELGIUM
Liege
Cologne
GERMANY
Luxemburg
Saar Basin
Metz
Strassburg
Nancy
Rhine R.
Rheims
Amiens
St. Quentin
Oise R.
Seine R.
Dieppe
Havre
Rouen
Cherbourg
CHANNEL IS.
Caen
St. Denis
Paris
Versailles
Marne R.
Troyes
Vosges Mts.
Belfort
Basel
Jura Mts.
Berne
SWITZERLAND
Lausanne
Lake of Geneva
Geneva
Mt. Blanc
Pte. St. Mathieu
Brest
Rennes
Le Mans
Orleans
Loire R.
Lorient
Angers
Tours
Vierzon
Villa
Dijon
Besancon
Saone R.
Rhone R.
Chalon sur Saone
Macon
St. Nazaire
Nantes
FRANCE
Poitiers
La Rochelle
Limoges
ILE D'OLERON
Rochefort
Gironde R.
Clermont-Ferrand
Lyons
St. Etienne
Grenoble
Valence
Isere R.
Durance R.
Rhone R.
Avignon
Marseilles
Monaco
Nice
Monte Carlo
Toulon
Gulf of The Lion
Montpellier
Nimes
Arles
Agen
Montauban
Garonne R.
Dordogne R.
Bordeaux
Bay of Biscay
Bayonne
Pau
Toulouse
Perpignan
Port Vendres
PYRENEES
Gerona
Lerida
Barcelona
Tarragona
Tortosa
Ferrol
La Coruna
C. Finisterra
Oviedo
Cilon
Santander
San Sebastian
CANTABRIAN MTS.
Bilbao
Santiago
Leon
Burgos
Pamplona
Ebro R.
Vigo
Mino R.
Braga
Oporto
Duero R.
Braganca
Valladolid
Saragossa
Medina
Salamanca
Coimbra
Madrid
SPAIN
Toledo
Aranjuez
Alcazar
Tajo R.
Lisbon
Elvas
Guadiana R.
Setubal
Badajoz
Sierra Morena
Linares
Alicante
Valencia
Gulf of Valencia
BALEARIC ISLANDS
MINORCA
Palma
MAJORCA
IVIZA
FORMENTERA
Murcia
Lorca
Cartagena
Huelva
Cordoba
Guadalquivir R.
Seville
Granada
Sierra Nevada
Almeria
Faro
C. St. Vincent
Cadiz
Jerez
Malaga
Gibraltar (Br.)
Strait of Gibraltar
Tangiers
Ceuta (Sp.)
ALBORAN I.
MEDITERRANEAN SEA
Algiers
Oran
Melilla
35°
FRANCE, SPAIN AND PORTUGAL
Scale of Miles
0 50 100 200 300
Largest City in each Country—Madrid
Cities next in importance——Havre
Capitals ☆ Railroads
NEW YORK
50,000 SQ. MILES
(Nearly)
COMPARATIVE AREA
Williams Engraving Co., New York
5°
0°

slope is so gentle that the Seine, the Loire, and the Garonne (*gä-rōn'*) rivers soon become navigable.

But sandbanks and shallows obstruct in places the Loire and the Garonne, and the Seine is noted for its meandering course. These rivers are subject to heavy and devastating floods similar to the one that deluged Paris in January, 1910.



View on the river Dordogne. The mountains of Auvergne in the distance.

The central plateau region consists of very ancient rocks worn down to an average height of less than 2,000 feet. Here and there remain detached peaks of hard volcanic rocks which have resisted the tooth of time. The surface of **central France** is nowhere rugged enough to prevent communication between all sections. The Seine, the Loire, the Garonne, and the Rhone rivers are joined by canals, allowing goods to be transported from the English channel to the Mediterranean sea. Both the Seine and the Loire (*lwär*) are connected with the Saone, and the Saone with the Rhine by a canal running through the **Burgundy Gate**, a famous pass between the Jura and the Vosges mountains. The Marne, a branch of the Seine, is connected with the Rhine by a canal crossing the Vosges mountains and joining the Burgundy canal. The northeastern part of France contains a **network of canals**, joining the Seine with the Somme (*sōm*), the Sambre, the Meuse

(*miūz*), and the Scheldt, thus bringing Holland, Belgium, Germany, and Switzerland all into water communication with France.

**Climate.**—As the highlands of France lie on the eastern border, they do not intercept the west winds from the Atlantic, and so the whole country gets the benefit of their warmth and moisture. These temper the climate and bring an abundance of rain. While the **average rainfall** for the entire country is about 30 inches, parts of the Pyrenees and the central plateau receive from 60 to 70 inches. The **Mediterranean coast** is a region of bright skies and warm sunshine; it has a semi-tropical climate, and is the home of the orange, the olive, and the mulberry tree.

A flower seller of Calais

From Toulon eastward to the boundary of Italy this coast is known as the "Riviera" (*re ve ā'ra*), or the "Azure Coast," on account of the blue sea and sky. This region is the most popular winter resort in Europe; and Nice, Cannes (*cän*), and other towns are thronged with visitors from all parts of Europe and America.

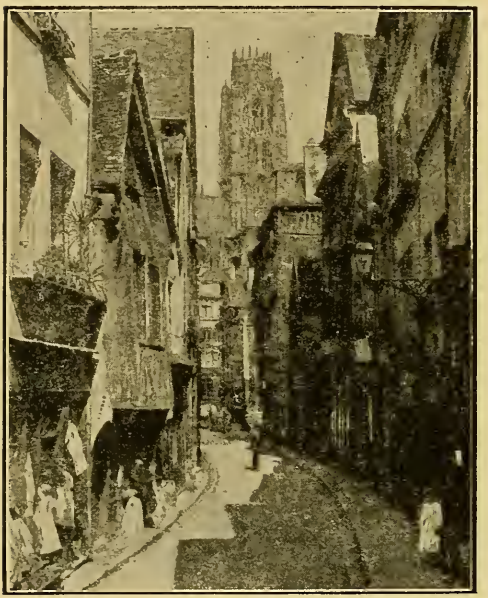
**People and History.** — The French race, like both the English and German, is a mixture of several races. The Romans conquered the Celts. The Latin language as well as Roman laws and customs gradually came into use among them. Then the Franks conquered the Romans, and France became one of the great powers of Europe. In 1789 the people rose in rebellion and a **republic** was set up, but it lasted only until 1804 when **Napoleon Bonaparte** made himself emperor. After his overthrow France again became a monarchy. But another revolution in 1848 established a second republic. Louis Napoleon, a nephew of Bonaparte, was chosen president. In a few years he in turn abolished the republic and became emperor. He ruled until the end of the Franco-Prussian war, when the **third French republic** was established, which has continued to the present time.

**Government and Religion.**—Laws are made by the **National Assembly**, which is composed of a **Chamber of Deputies** elected directly

by the people, and a **Senate**, chosen by representatives of the people. The President is elected by the National Assembly.

There is no state religion in France, but any religious body may receive permission from the state to organize for public worship. A large majority of the people are Roman Catholics, but there are many Protestants and Jews.

**Character of the French People.** — The French are an intellectual and brilliant people. They are, as a class, industrious and thrifty, especially those of the country districts. They are noted for taste and skill and originality in the arts, and are designers of new things in fashions as well as discoverers of new varieties of fruits and flowers. Much heavy work falls upon the countrywomen, and they are commonly seen working in the fields with the men. This is partly due to the exactions of the **military service** which compels every man of legal age to serve at least two years in the army. Wine is so abundant and cheap that it is drunk as commonly as beer is in Germany. Beef is, as a rule, too expensive for the peasant's purse, but his poultry yard and his dairy supply him with the choicest food.



An old street in Rouen.

**Occupations; Agriculture.** — About two thirds of the soil of France is devoted to **farming** and **grazing**, and the greater part of the population is supported by these industries. France has fully as many **farms** as the United States, although it is only one fifteenth as large; but while the farms in our country range from a hundred to thousands of acres, those in France average scarcely over fifteen acres. The wheat crop ranks next to those of Russia and the United States; but in **wine** France far exceeds any other country. **Wheat** grows everywhere in the lowland regions, but the vine is confined chiefly to the warm valleys of the Loire,

the Garonne, the Rhone, and the Mediterranean coast. Other valuable crops are potatoes, grains, and the sugar-beet; third in importance are hay, tobacco, corn, flax, hemp, and colza (a plant resembling flax from the seeds of which oil is obtained).

Peasants bringing wool to market in northern France.

The **smaller crops** of fruits and nuts are of great value, amounting to many million dollars. The sugar-beet is taking the place of wheat in many parts of the northern provinces on account of its greater profit, since wheat and flour can be brought cheaply from the United States. The crop of mulberry leaves, for the sake of the silkworm, is of increasing importance because of the bounty which the government places on raw silk. The greater part of the raw silk for her factories France still brings from Italy, China, and other eastern countries. The silks and the wines of France go to every part of the world and are her most famous products.

The **lumber product** of France is not enough to supply the home demand. Forests of beech, pine, elm, and chestnut cover about one fifth of the country and supply the greater part of the fuel used, but much lumber is imported for building and cabinet purposes and for packing-cases.

**Stock-raising** is an important industry. Horses and cattle are kept in the northern provinces and sheep are pastured in the mountain and plateau regions and on the sandy plains known as **landes**, bordering the shore of the bay of Biscay in the southwest. These plains are sand dunes; they are continually moving, being blown inland by the winds.

Gathering grapes in a French vineyard. The owner of the vineyard is in the foreground.

A specialty is made of breeding **horses** for heavy draught work, such as the famous Percheron breed. French dairies produce the finest of **cheese**; well-known brands are the Camembert and Neufchatel (*new-shä-tel'*) of Normandy; and in the central plateau and Jura regions the Rochefort (*roke'-fort*) (made from sheep's milk and cured in limestone caves). **Sheep** are bred both for flesh and for wool, and about 18,000,000 are pastured. Many swine and goats are also kept. The main supply of goat skins, however, comes from the French colonies in Africa.

**Fisheries.**—The fisheries have always been of great value. The French were the first to visit the Newfoundland banks, and over 500 vessels are still maintained at the stations of St. Pierre and Miquelon in the taking of cod. Herrings and sardines are next in value, and productive oyster beds have been planted in the English

channel and the bay of Biscay. French **sardines** form a valuable article of export. The fisheries give employment to about 138,000 men and 30,000 vessels. The province of Brittany furnishes the most fishermen, and the chief fishing ports are St. Malo and Brest.

**Minerals.**—France is not so well supplied with minerals as either Great Britain or Germany. Coal and iron are the more abundant and valuable ones, but are insufficient. **Coal** has to be imported from England, Germany, and Belgium, and **iron ore** from Spain and the Duchy of Luxemburg. Sixty per cent of the coal and nearly all the iron of France was formerly mined near the borders of Belgium, but the mines of this section as well as the great manufacturing cities were utterly destroyed by the Germans in 1914–1915. To compensate France for the loss of the coal mines, the Germans have been compelled to surrender the coal fields of the valley of the Saar river.

Scene in the Landes of southwestern France. The shepherds walk on stilts in order to see their flocks from a greater distance.

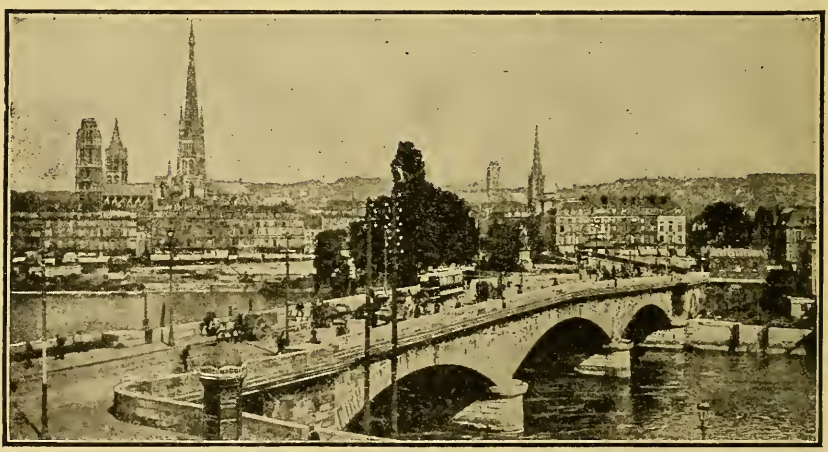
Fisher-women of Calais.

The mineral next in value is **salt**; this is mined near the German frontier, and is also obtained from salt marshes along the western coast. **Building stone** of every sort is quarried, as well as **phosphate** and various kinds of **cement** rock, one of which is the famous "plaster of Paris" found

near that city. Besides the minerals mentioned, small amounts of lead, silver, copper, arsenic, antimony, and manganese are found. The fine **china clays** near Limoges account for the porcelain industries of that city. The deposits of coal at Limoges also favor this industry (see *page* 46). The mines and quarries of France employ perhaps a quarter of a million men, and the value of the annual product is nearly $200,000,000.

Embroidering lace curtains by hand.

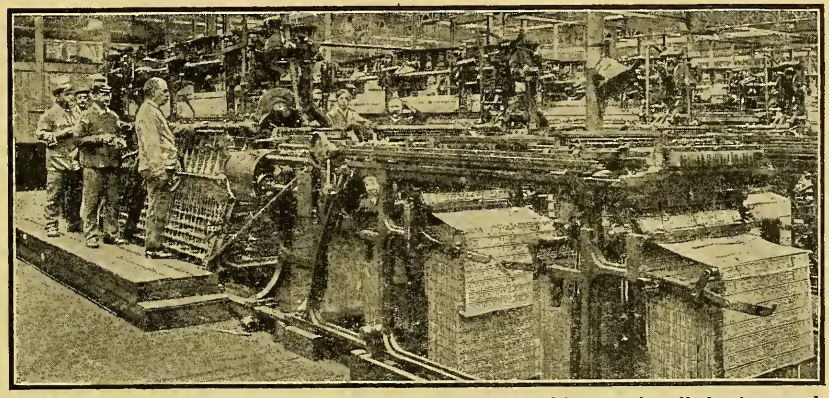
**Manufactures.**—The manufacturing industries of France are more valuable than all the others combined. These comprise articles of use and luxury noted for beauty and fine workmanship. The **textiles** are cotton and woolen goods, velvets, silks and ribbons, linen goods, fine laces, and



View in Rouen showing bridge and cathedral.

embroideries. Wearing apparel, works of art, jewelry, vases, perfumery, clocks, and watches, and fine glassware, are made in Paris. At St. Cloud (*sän-clū′*), a suburb of Paris, the famous **Sevres** (*sā′-vr*)

porcelain is made. Besides these manufactures, iron and steel goods, machinery, locomotives, and railway supplies are made for home use. Special machines used in the factories are an important product. Silk-reeling machines and those for weaving brocaded cloth are French inventions. French machinery is noted for accurate workmanship and durability.



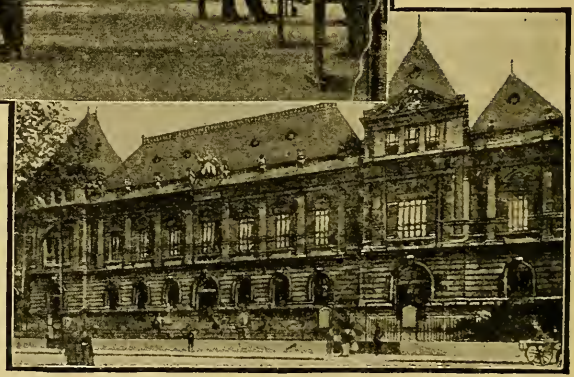
Interior of a lace mill at Calais. The loom shown in this room is called a jacquard. It weaves lace in embroidered patterns.

**Silk** is the most valuable textile and the city of Lyons in the Rhone valley is the largest center of silk manufacture in the world. The preparation of **raw silk** can be profitably done only where people will work patiently long hours for low wages. For this reason China, Japan, Italy, and western Asia have been the leading raw silk producing countries.

The eggs of the silk moth are hatched in warm rooms and the young worms are placed on the mulberry leaves and begin to eat. In four or five weeks they are placed on twigs and laid on shelves to spin their cocoons. This the worm does by winding the fine fiber many times about its body until it is enveloped in an elliptical silk bag about an inch in length. Then the worms inside the cocoons are killed by heating so that they will not eat through the cocoon and spoil the silk. The operator finds the ends of the fibers and twists enough of them together to make a thread of sufficient size. By using many cocoons a thread of indefinite length is obtained. The reeled silk is called **raw silk**, and hundreds of cocoons are required to make a single hank of it.

More silk is woven in France on **hand looms** in the laborers' homes than in the factories. At St. Etienne near Lyons, a large proportion of the ribbons of the world are made. To its ribbon industries St. Etienne adds machinery and iron work. Coal and iron ore are found in the vicinity, which supply also the mills of Lyons. Another vastly important industry of this section is the making of lace by hand. The most expensive hand lace is made by weaving the pattern across a pillow with needles or bobbins; these are the "point" laces, the word *point* signifying merely pillow lace. France produces the finest hand-made lace in the world. **Calais** (*cal-lay'*) is a leading center for machine-made lace.

**Cotton and linen goods** are made chiefly at Rouen and Lille. The designing and manufacturing of fashionable dress patterns is a specialty in the French factories. **Woolen manufacture** centers at Roubaix, Rheims (*reems*), and Amiens. Roubaix is entirely devoted to the work of finishing cloth after it is woven. The most expensive cassimeres and broadcloths for men's clothing are produced by these towns.

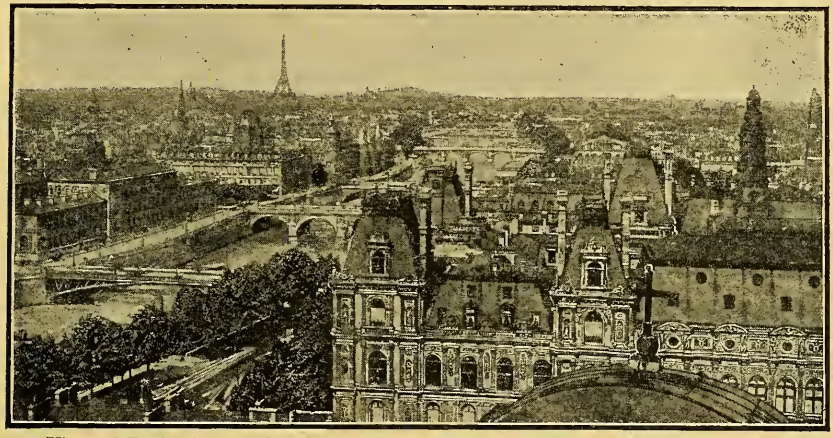


A national industrial school at Roubaix, and a room in the same where hand weaving is taught.

Many towns in France are devoted to one particular manufacturing industry, which in many cases has been carried on for centuries; for example, the towns of the Rhone valley have been making silk for five hundred years. The names of such towns attached to the goods which they produce are a guarantee of good quality;

when we speak of *Sevres* china, of *Baccarat* cut glass, or *Alençon* lace, we know that we are naming the best article of the kind obtainable.

**Commerce.**—The raw materials for her factories France must buy largely abroad; but unlike the other thickly settled countries of Europe she is able to feed the greater part of her people from her own farms. Wool, cotton, and raw silk are the heaviest **imports**, in the order named. Other large imports are coal, cereals, hides, and furs, lumber, oil-seeds, and wine.



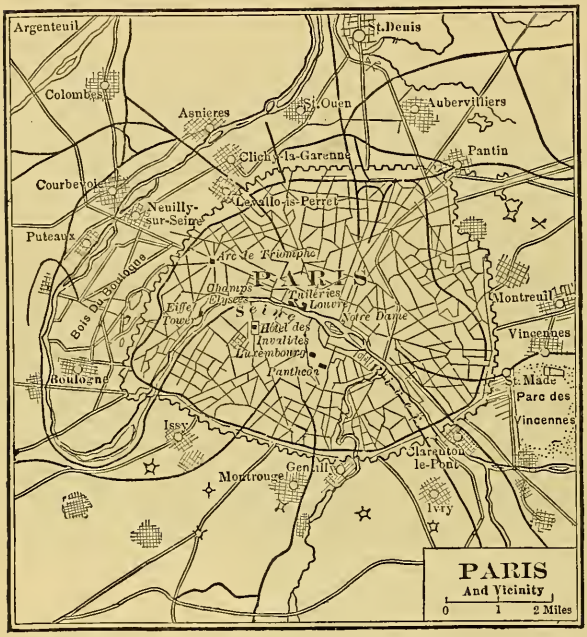
View of Paris showing bridges across the Seine and the chief public buildings.

The chief **exports** of France are wine, cheese, chemicals, sugar, and the products of her factories as named above. Of these, silk, cottons, and woolen goods are first in value. French goods are the highest-priced goods in the world's markets, and on this account their sale is confined to the richer countries; hence her share of the world's trade is far less than that of Great Britain and the United States.

**Transportation.** — Though France has a splendid system of internal waterways, and a complete system of railways connecting her leading cities, she is not well equipped for **ocean commerce**. The tonnage of her ships is about that of Norway, and only one twen-

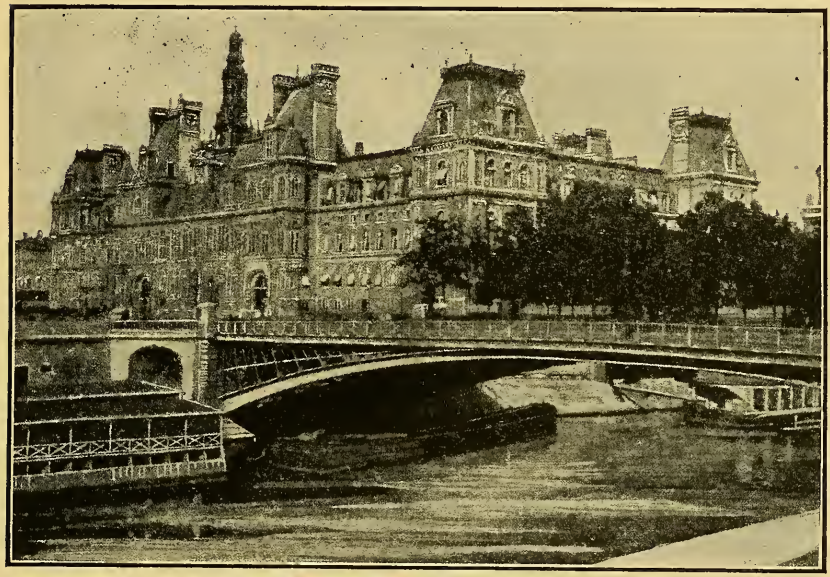
tieth that of Great Britain. The government encourages the building of merchant ships by paying subsidies to vessels traversing certain routes of trade. Meanwhile she has to depend largely upon the ships of Great Britain and other nations.

**Cities.**—Besides being the chief manufacturing and commercial city of France, **Paris** is the center of education, art, politics, and business. It is the most accessible city in France. All the river valleys of the northern plain converge there, and all the railway systems of the country, with one exception, radiate from Paris. Paris is the second city in size on the continent of Europe, and fourth in the world.




Paris is known the world over as a city of beauty and gayety. It is the paradise of pleasure seekers. Its parks and gardens are unequaled. Its broad boulevards, humming with varied life, are a constant source of entertainment. Its buildings are models of graceful architecture. Kings and emperors of France for many centuries vied with one another in adorning the city with splendid palaces and museums, and in storing them with priceless works of art. One of the famous places is the ancient cathedral of **Notre Dame**, the scene of many royal marriages and the burial place of kings. West of Notre Dame along the Seine are the beautiful gardens of the **Tuileries** (*tweel'-ree*) and the palace of the **Louvre**. The Louvre is the priceless art museum of France; it contains the choicest collection of paintings, sculptures, and antiquities in the world. From the Tuileries and the Louvre, the most beautiful street in Paris, the **Champs Élysées** (*shong'-ay-lee-say'*), extends for

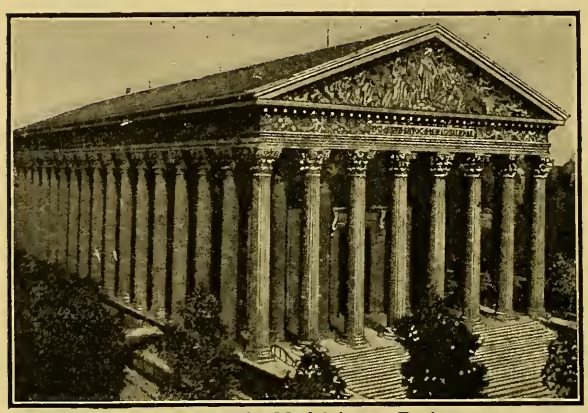
a mile or more to the Place du Carrousel, a public square, in the center of which stands the Arch of Triumph, erected by Napoleon in memory of his victories. From this arch twelve splendid avenues radiate, one leading to the **Eiffel** Tower, the tallest structure in the world, and another (the Champs Élysées) to the Bois de Boulogne, the chief park and pleasure ground of the city.



The Hotel de Ville, or City Hall, Paris.

**Marseilles**, probably the oldest town in France, is next to Paris in size. It has a slightly larger commerce than Havre, the second port in volume of trade. Marseilles owes its importance to its location near the mouth of the Rhone, which gives it the trade of Lyons; it has also canal connection with the valley of the Garonne, and what is of far greater importance it is the nearest port to the prosperous French colony of Algeria, to the countries bordering on the Mediterranean, and to the countries of Asia, reached by way of the Suez canal. Marseilles imports raw silk, cotton, and wool from Asia, grain from Russia, and coffee and spices from the far East. Its exports are manufactured silk, wines, leather goods, and the various wares of France.

**Havre**, as the seaport of Paris, exports the extensive manufactures of that city as well as the textile products of the North. It has the greater part of the trade with the new world, receiving raw cotton, grain, and provisions from the United States; coffee, wool, and meat from South America; and lumber and grain from Canada. **Ship-building** and the manufacture of **machinery** are important industries at Havre. **Dunkirk** handles the raw materials and manufactures for the great industrial center near Lille and Roubaix. **Bordeaux** is the chief wine port of France. Among the marvels of this city are the enormous cellars and storage vaults for wine. An active trade is carried on with Great Britain, Africa, and South America. **Brest**, Cherbourg (*share-boor'*), Lorient (*lo-re-on'*), Rochefort, and **Toulon** are important as government ship-building and repairing stations.



Church of the Madeleine at Paris.

**Corsica**, a mountainous island in the Mediterranean, belongs to France. Its area is about 3,000 square miles and its population nearly 300,000. For purposes of government it is considered a part of the mainland. The island is productive of minerals, forest products, and wine. It is an important naval station. **Ajaccio** (*ä-yä'-chō*), the capital, was the birthplace of Napoleon Bonaparte.

**Emigration and Colonies.**—France has always been a leading nation in the discovery and colonization of new countries. Her **foreign possessions** were once more extensive than those of Great Britain, but America and India were lost through bad management, and as the result of wars. Her most flourishing colony is **Algeria**. Its trade with France amounts to more than $100,000,000 annually.

**Other colonies** in Africa are Senegal, Senegambia, and the Niger country, French Guinea, the Ivory coast, Dahomey, French Congo, Somali Coast and Madagascar, and various islands. Her **Asiatic colonies** comprise several settlements in India, Annam, Cambodia, Cochin-China, Tonking, and Laos. In **America** she has Guadaloupe, Guiana, Martinique and St. Pierre, and Miquelon. She has also a few trading-posts in Oceania. The total area of these various possessions is about twenty times that of France, and the population is about 56,000,000. The entire

colonial trade with the home country amounts to a little over $200,000,000 annually. The increase of population in France has been but a little over a million during the last ten years, while that of Germany has been ten times as great. As a result there is almost no emigration from France. She has room for her people at home.

QUESTIONS AND TOPICS. — (1) Location; compare latitude with that of the United States (see *page* 178). Size and population; compare with Great Britain; with Germany; with New York state; with the United States. What advantages for commerce has France? Name a port on each seaboard. (2) What natural boundaries surround France? Where are the highlands? The lowlands? What is said of the central plateau? Two highest elevations? (3) Name the chief rivers of France, and tell their sources and directions. What rivers in the interior of France are joined by canals? With what countries is France joined by canals? (4) Describe the climate. Where does the greatest amount of rain fall? What is said of the climate of the Mediterranean coast? What famous places are located there? (5) What races have occupied France at different times? What forms of government has it had at different times? (6) What is said of the character of the French people? Of the peasant farmer? Importance of agriculture. What are the leading crops? What other crops are important? What about the supply of lumber? (7) Where are the stock-raising regions of France? What is said of horses? Of sheep? Importance of the fisheries? What kinds of fish are taken? Where are oysters obtained? (8) What minerals are the most important in France? Compare the supply of coal and iron with that of Great Britain or Germany Where is salt obtained? Name other minerals found in France. (9) What important manufactures depend directly upon minerals? Name three leading manufacturing centers of France. Name the leading classes of manufactures in each. What section is noted for silk? Write an account of the culture of the silkworm and of the preparation of the silk. Make a list of ten articles of French manufacture, and name the city where each is made. (10) What are the chief exports of France? The chief imports? Make a list of ten leading cities, and give the location and an interesting fact about each. Give some account of Corsica. Name the leading colonies of France, and tell something of their importance. Why is there so little French emigration?

## CHAPTER IV

### GERMANY

**The New Germany.** — A few years ago we studied in this book about a great "German Empire," with its large population, its mighty army and navy, its vast commerce, and its extensive colonies in Africa and among the islands of the Pacific ocean. This great German Empire was ambitious to become still greater, and the ex-Kaiser Wilhelm II and the military party associated with him deliberately embroiled the world in a terrible war, by which they hoped to extend their power across Europe to Constantinople and into Asia. This war began with the assassination of the Austrian Archduke Ferdinand at Sarajevo in Bosnia, June 28, 1914, and ended with the signing of the Peace Treaty at Versailles just five years later.

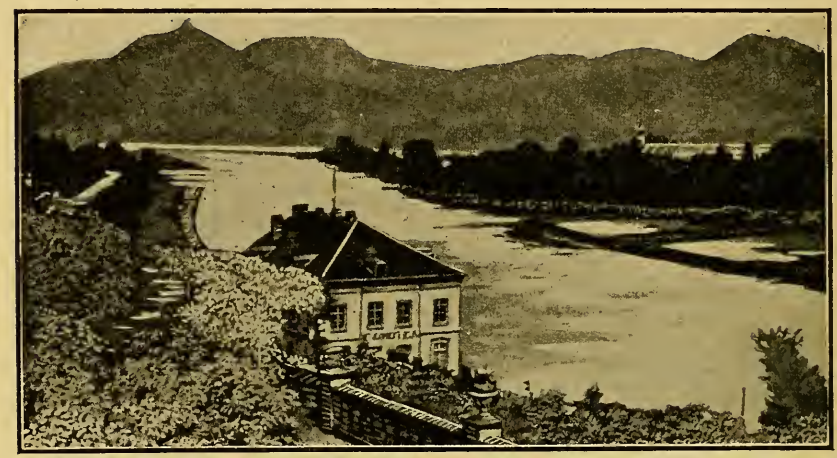
**The War and its Results.** — The story of the war is fresh in our minds. We recall how one nation after another took the field until nearly the whole world was arrayed against Germany and her allies. We recall how our own country entered the war after the sinking of the *Lusitania* and other offenses against the law of nations; and how the American armies, together with those of Great Britain, France, and Italy, drove the Germans out of France and compelled them to make peace.

To Germany the war was a terrible disaster, but one that she richly deserved. In the first place she was compelled to give up her vast colonial empire of 1,270,000 square miles of territory. She was also forced to give back to France Alsace-Lorraine with 5,600 square miles; to Belgium she forfeited the districts of Malmedy and Eupen with 382 square miles;

to the new nation of Poland she gave up parts of Silesia, Posen, West Prussia, and East Prussia — in all 27,686 square miles — besides the 40 additional square miles in the vicinity of Memel. Besides these cessions, she loses her sovereignty over 738 square miles in the basin of the Saar river, and the free city of Danzig with 729 square miles. Still more territory may be lost if the inhabitants so vote; for 5,785 square miles in East Prussia, 2,500 square miles in Schleswig, and the 910-square mile strip of East Prussia north of the Niemen river are to go to Poland, Denmark, and to some third nation not yet determined, if a majority of the voters so decide. Thus the total area which may be lost to Germany aggregates about 45,000 square miles, or one fifth of her entire territory in Europe — and this in addition to her colonies. Even this is not all, for she must pay for the cities and property destroyed by her in France, Belgium, and Serbia a sum estimated at $25,000,000,000, and whatever additional sums the victorious Allies choose to impose upon her. Truly, "The way of the transgressor is hard!"

**Changes in Government.** — The old German Empire consisted of four kingdoms — Prussia, Bavaria, Saxony, Württemberg — six grand duchies, five duchies, and seven principalities, besides the three free cities of Hamburg, Lübeck, and Bremen. The Kaiser, the kings, princes, dukes, and grand dukes have been removed from office. Germany to-day is a republic, and all the separate states have republican forms of government. Of course, the affairs of government are not fully settled and we do not know just how the country will finally be governed, but it is certain that the old kings and princes will never be restored to power. In order to prevent any attempts to restore them, the Allies compelled Germany to surrender her entire navy, to reduce her army to 100,000 men, and to destroy all her forts and defenses. From the military point of view Germany will hereafter rank among powers of the third class.

**Surface and Climate.** — With the exception of the upper plain of the Danube river the surface of Germany is a continuous **slope** from the summits of the Alps and the Erzgebirge (*erts-ge-bir'-ge*) (*ore mountains*) to the North and Baltic seas.



The Rhine at the Seven mountains. The highest of these is the Drachenfels, or Dragon Rock, at the foot of which, according to the German legend, Siegfried slew the dragon.

The southern half consists of a **highland region**, through which the Rhine and its branches have cut broad and fertile valleys, and of worn-down **mountain ridges** clothed with forests. The extreme southern parts of the highlands belong to the region of the Alps, where the loftiest peaks attain a height of nearly 10,000 feet. The plain of the Danube and the **central highlands** do not exceed 2,000 feet in elevation except in occasional mountain peaks, those of the Riesengebirge (*giant mountains*) being the highest.

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MAP STUDIES. — (1) In what part of Europe is Germany? What countries bound it on the east? On the south? What other land boundaries has it? What waters on the northern boundary? What parallel passes near the mouth of the Elbe river? What parallel near the southern border? What is the extreme length of Germany from east to west? From north to south? (2) Compare the latitude of Berlin with that of London; with that of New York City (see *page* 178). What mountains on

The **climate** of Germany is remarkable for the fact that the southern part, on account of the increased elevation, is quite as cold as the northern part. **Bavaria**, in the extreme south, is one of the coldest parts of the country, the city of Munich having the same average temperature as Königsberg in the extreme north. Generally speaking, the climate of southwestern and western Germany is mild, the **temperature** averaging about the same as that of Great Britain. The low plains and river valleys of these sections are the warmest parts of the country. The highlands are cooler and have a heavier **rainfall.** The eastern half of the country is much colder, and has less rain than the western half on account of its greater distance from the ocean. The **southwesterly winds** lose a large part of their heat and moisture in passing over the highland regions. The ports on the North sea are open and free from ice nearly all the winter, while those on the Baltic are closed from two to three months.

**Rivers and Lakes.** — The general slope being northward, all the rivers, with the exception of the Danube and its branches, discharge into the North and Baltic seas. The **Rhine** forms a most important highway of commerce from Switzerland to the sea. It flows through a broad and fertile valley, in which are located the largest of Germany's manufacturing interests.

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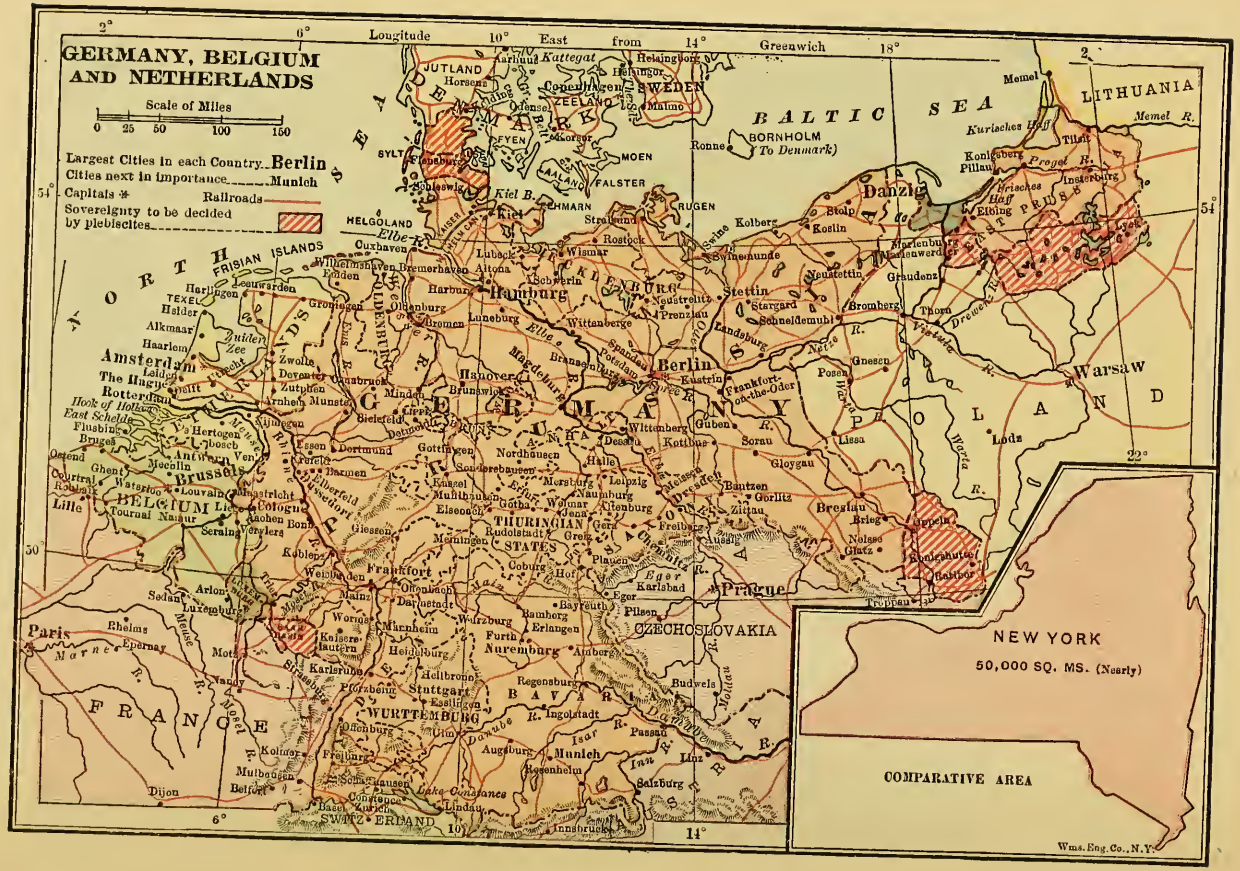
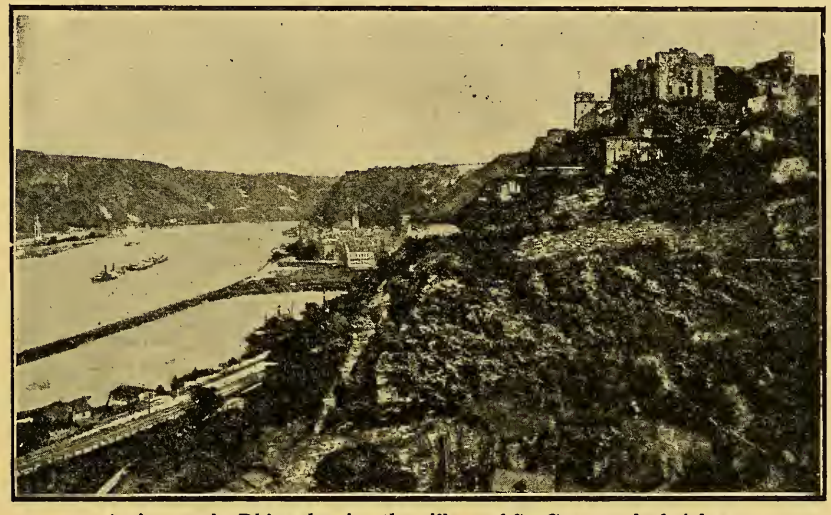
the southern border of Germany? What lake? What river rises in this lake and flows through Germany? What river rising in the Alps crosses southern Germany? Find the sources of the Oder, the Elbe, and the Vistula. Into what waters does each of these flow? (3) Describe the slope of Germany. In what natural divisions of Europe does the greater part of it lie? What seaports on the North sea? On the Baltic? What is the capital city? Name and locate five of the leading German states. What is the capital of each? (4) On an outline map of Germany locate the chief rivers and cities and write in the names of all the boundaries.

BELGIUM AND THE NETHERLANDS. — (1) In what part of Europe are these countries? (2) What countries border Belgium? Compare its coast line with that of Holland. What rivers cross Belgium? In which direction does the country slope? (3) Locate the capital of Belgium; the chief seaport. Locate Ghent, Liege (li-āzh′), Namur, and Verviers (ver-vyā′). (4) What countries border Holland? What rivers cross Holland? Where is the Zuyder Zee? What islands along the coast? (5) What is the capital of Holland? The chief city and leading seaport? Compare Belgium and Holland as to coast line. Draw an outline map of these two countries and locate the rivers and chief cities.


GERMANY, BELGIUM AND NETHERLANDS
Scale of Miles
0 25 50 100 150
Largest Cities in each Country Berlin
Cities next in importance Munich
Capitals
Railroads
Sovereignty to be decided by plebiscites
Longitude East from Greenwich
2° 0° 10° 14° 18°
54° 50° 6° 10° 14° 22°
NORTH SEA
BALTIC SEA
JUTLAND
Kattegat
SWEDEN
DENMARK
ZEELAND
FYEN
SYLT
MOEN
FALSTER
BORNHOLM
To Denmark
RUGEN
Kiel B.
Kiel
HELGOLAND
FRISIAN ISLANDS
Elbe R.
Cuxhaven
Wilhelmshaven
Bremerhaven
Emden
Leeuwarden
Harlingen
TEXEL
Helder
Alkmaar
Haarlem
Amsterdam
Zuider Zee
The Hague
Leiden
Utrecht
Rotterdam
Hook of Holland
East Scheldt
Flushing
Bruges
Ostend
Ghent
Courtrai
Roubaix
Lille
Tournai
Ypres
Antwerp
Malines
Brussels
Waterloo
Louvain
Namur
BELGIUM
Liege
Aachen
Verviers
Spa
Tirlemont
Hasselt
Maestricht
Roermond
Venlo
Arnhem
Nijmegen
Zutphen
Deventer
Zwolle
Groningen
Oldenburg
Bremen
Harburg
Hamburg
Altona
Lubeck
Wismar
Rostock
Stralsund
Luneburg
Wittenberge
Schwerin
MECKLENBURG
Neustrelitz
Prenzlau
Stettin
Stargard
Schneidemuhl
Kolberg
Koslin
Stolp
Danzig
Neustettin
Graudenz
Bromberg
Thorn
Marienburg
Marienwerder
Elbing
Frisches Haff
Kurisches Haff
Memel
Memel R.
LITHUANIA
Tilsit
Konigsberg
Pillau
Pregel R.
Insterburg
Gumbinnen
Lyck
EAST PRUSSIA
Vistula R.
Warsaw
POLAND
Lodz
Gnesen
Posen
Netze R.
Warta R.
Zandsburg
Berlin
Potsdam
Brandenburg
Magdeburg
Elbe R.
Spandau
Frankfort on the Oder
Eastrin
Wittenberg
Guben
Sorau
Lissa
Gloygau
Kottbus
Dessau
Halle
Leipzig
Merseburg
Naumburg
Weimar
Jena
Gera
Zeitz
Altenburg
Freiberg
Dresden
Bautzen
Gorlitz
Zittau
Breslau
Brieg
Oppeln
Noisse
Glatz
Konigshutte
Beuthen
Hanover
Brunswick
Minden
Osnabruck
Munster
Bielefeld
Detmold
Paderborn
Gottingen
Nordhausen
Sondershausen
Cassel
Muhlhausen
Gotha
Eisenach
Wurzburg
Meiningen
Rudolstadt
Coburg
Hof
Plauen
Eger
Karlsbad
Prague
Teplitz
Aussig
Leitmeritz
Elbe R.
Moldau R.
Saale R.
Weser R.
Ems R.
Rhine R.
Ruhr R.
Essen
Dortmund
Barmen
Elberfeld
Solingen
Remscheid
Cologne
Bonn
Coblenz
Aix-la-Chapelle
Duren
Julich
Crefeld
Neuss
Dusseldorf
Giessen
Wetzlar
Frankfort
Offenbach
Mainz
Darmstadt
Worms
Mannheim
Kaiserslautern
Landau
Karlsruhe
Rastatt
Baden
Strasbourg
Colmar
Mulhausen
Belfort
Dijon
Metz
Thionville
Sedan
Arlon
Luxemburg
Longwy
Briey
Verdun
Rheims
Epernay
Paris
Marne R.
Meuse R.
Moselle R.
Saar R.
Nahe R.
Main R.
Neckar R.
Danube R.
Inn R.
Isar R.
Lech R.
Iller R.
Rhone R.
Saone R.
Aisne R.
Somme R.
Oise R.
Seine R.
Kiel Canal
Eider R.
Schleswig
Flensburg
Husum
Tondern
Aabenraa
Sonderburg
Apenrade
Horsens
Aarhuus
Randers
Aalborg
Helsingor
Helsingborg
Malmo
Ronne
Moreor
Odense
Esbjerg
Ringkjobing
Thisted
Skagerrak
Kattegat
Cattaro
Innsbruck
Salzburg
Linz
Passau
Munich
Augsburg
Ulm
Stuttgart
Esslingen
Heilbronn
Hall
Crailsheim
Ansbach
Furth
Nuremburg
Erlangen
Bayreuth
Amberg
Regensburg
Ingolstadt
Budweis
Pilsen
Rauhberg
Egra
Aussig
Teplitz
Leitmeritz
Konigshutte
Beuthen
Glatz
Noisse
Oppeln
Brieg
Breslau
Zittau
Gorlitz
Bautzen
Freiberg
Zwickau
Gera
Altenburg
Weimar
Naumburg
Merseburg
Leipzig
Halle
Dessau
Kottbus
Sorau
Guben
Wittenberg
Lissa
Gloygau
Posen
Gnesen
Netze R.
Warta R.
Vistula R.
Thorn
Graudenz
Bromberg
Neustettin
Stargard
Schneidemuhl
Zandsburg
Prenzlau
Neustrelitz
Wittenberge
Luneburg
Harburg
Altona
Lubeck
Wismar
Rostock
Stralsund
Kolberg
Koslin
Stolp
Danzig
Elbing
Marienburg
Marienwerder
Graudenz
Thorn

Double-tracked railroads on both sides of the river and the mountainous and picturesque scenery help to remind us of the Hudson river in New York state. The songs and legends connected with its ancient towns and the lofty castles which crown the cliffs on either side make the Rhine the chief historic river of Germany.

East of the Rhine are the **Weser**, the **Elbe**, the **Oder**, and the **Vistula**, each of which is navigable for hundreds of miles and has many navigable tributaries. These river systems are



A view on the Rhine showing the village of St. Goar on the heights.

connected with one another in their middle courses by **canals**, forming a complete system of waterways across the country from east to west. The Rhine is also connected by canal with the Danube and the Rhone, securing water transportation to both the Black and the Mediterranean sea. The **Kiel ship canal**, 61 miles in length, connecting the North and Baltic seas, is the most useful of the canals; between 30,000 and 40,000 ships pass through it annually.

**Animals and Plants; Forests.** — In an old and thickly-settled country like Germany, where all the available space is cultivated, the native animals disappear to be replaced by

those domestic species which are common to all countries. The stag, deer, and wild boar, however, are still found in the extensive forests of Germany, and also the usual small animals. Fully one fourth the area of the country is forest-covered. The pine and the fir are the chief varieties among the soft woods, and the oak, beech, birch, and larch among hard woods.

Women harvesting with the sickle in Germany.

**Agriculture.** — Nearly one third of the people are dependent for a living upon agriculture, which is still the most important industry of Germany. The quality of the **soil**, except in the fertile river valleys, is poor, but the German farmer by scientific methods secures excellent crops.

**Rye**, **potatoes**, and **hay** are the leading farm crops. Wheat is grown to a less extent than the other grains because the clayey and sandy soils of the lowlands are not so well adapted to it. The potato crop of Germany exceeds that of any other country. Great quantities are exported and still greater quantities are used in the manufacture of **alcohol**. Another

crop in which Germany leads the world is the **sugar-beet.** It grows well in the lighter soils of the northern plains. Germany produces more beet sugar than any other country.

The **national drink** of Germany being beer, much attention is given to hop culture. The warm and moist climate of the Rhine valley is well suited to this plant, and it is here that the crop is chiefly grown. Tobacco raising and grape culture are also leading industries of this section. The vine will grow farther north in the Rhine valley than in any other part of Europe, and the steep hillsides along the river are often terraced to their tops and planted with vineyards.

**Meadows** and **pastures** occupy about one third of the arable land. The hay crop ranks next to that of potatoes in value. Beef and dairy cattle are raised everywhere, and much attention is given to securing the best breeds; but the low price at which beef and wool can be obtained from both Australia and America has made farming more profitable than grazing.

**Mining.** — The Germans are skilled miners and metallurgists. As in Great Britain, the chief minerals are coal and iron. These ores commonly occur in the same region, thus fixing the location of the great manufacturing towns. The richest coal field lies in the middle of the Rhine valley along the river Ruhr (*rōōr*); it extends eastward, as either coal or lignite, through Saxony and Silesia, and westward through Belgium, Luxemburg, and into France.

The Rhine district, the Hartz and the Ore mountains, have the richest deposits of iron. Silver and copper are found in the Hartz mountains. About half the silver mined in Europe comes from Germany. The largest **zinc mines** in the world are located in Silesia. The north German plain contains **rock salt** mixed with valuable salts of potassium. The latter are used in glass-making, soap-making, dyeing, and many other manufacturing processes.

**Potash** (potassium salts) is usually obtained from wood ashes; but Germany has a natural supply stored away beneath the soil sufficient for many centuries.

Solenhofen in Bavaria is the chief source of **lithographic stone**, a stone that is used especially in printing maps and pictures containing many colors.

**Manufacturing.** — As a manufacturing country Germany ranks next to the United States and Great Britain. Iron, steel, and textile fabrics are the most valuable **products** of her mills; next come drugs and chemicals, leather goods, glassware,

A view in the heart of Leipzig showing public square and boulevard.

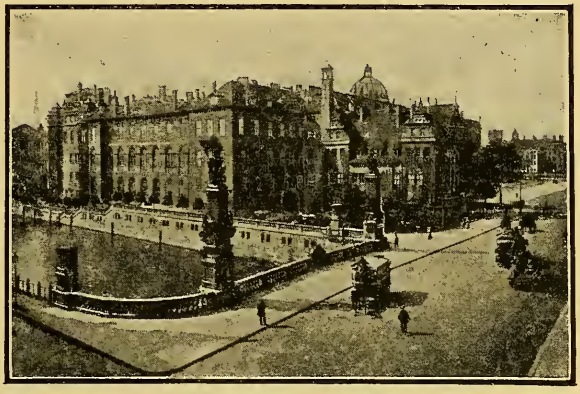
books, and fine engravings. Toys, carved wood, and cutlery are also famous German products.

The **coal fields** in the Ruhr valley have fixed the location of the " Black Country " of Germany. The entire valley is devoted to manufacturing. The twin cities of **Barmen-Elberfeld** are centers for cotton and woolen goods, while **Krefeld** (*krā'-felt*) leads in the manufacture of silk. **Dortmund** is a center of coal and iron mining, and is noted for its foundries and machine works. **Solingen** (*zo'-ling-en*) is famous for cutlery and other articles of steel.

A second important manufacturing center is **southern Saxony**, where the Erzgebirge mines furnish coal, iron, and other minerals, and the river Elbe supplies transportation to the sea. Saxony woolens have long been famous, but now cotton goods are the more important, and **Chemnitz, Zwickau**, and the neighboring towns form a cotton manufacturing center which may be compared with Manchester in Great Britain. Other leading Saxon towns are **Dresden**, the capital, famous for its

architecture and art treasures; near by at **Meissen** and also at Berlin the beautiful **Dresden chinaware** is made; Leipzig, known the world over for its fur-dressing and printing and publishing establishments, is the center of the German book trade; Magdeburg is the chief center of the sugar trade. **Stuttgart**, the ancient capital of Württemberg, is noted for its pianos, its school of music, its book publishing; and the old town of **Nuremberg** in Bavaria is the chief seat of the toy trade.

**German Cities.** — Owing to the introduction of steam power and the rapid extension of the factory system, German cities have had a rapidity of growth during the last forty years that has not been equaled elsewhere. In 1871 there were only eight cities with a population of over 100,000; they contained a little less than five per cent of the population. Now there are about forty cities having over 100,000, and fifty more having between 50,000 and 100,000; these cities contain one fourth the population of the nation. Toy-making, wood-carving, cabinet work, lace and embroidery work are still largely carried on in the German household.

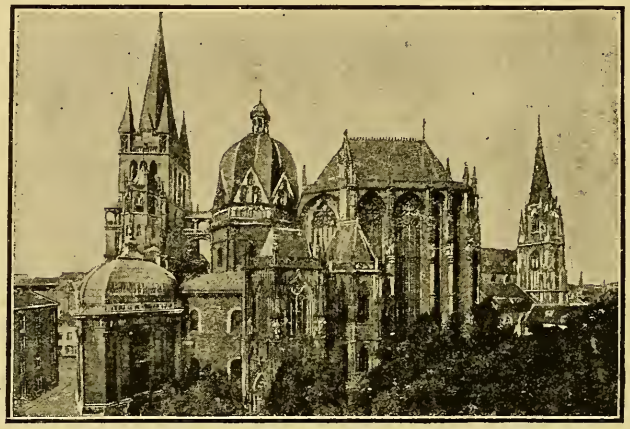


The former royal palace at Berlin.

**Berlin**, the metropolis, ranks as the most important city. It is the third city of the world in size, coming next to London among European cities. It is the chief railway center of central Europe, and is connected by canal with both the Elbe and the Oder river. It is also the **money center** of Germany, and like all large and rich cities specializes in high-class manufactures. Clothing, shoes and leather goods, jewelry, fine pottery and vases, artistic and fancy articles, and machinery are some of the varied products.

Some famous cities in the Rhine valley are **Cologne** (*kō-lōn'*), noted for its beautiful cathedral, **Essen,** famous as a steel-manufacturing center, **Aachen** (*ah'-ken*), the burial place of Charlemagne (*shar'-le-mān*), and **Frankfort-on-the-Main,** the old seat of government of the German Confederation.

**Seaports and Commerce.** — On account of its favorable location, **Hamburg,** the second city in size, handles about half



Cathedral at Aachen. The burial-place of Charlemagne.

the foreign trade. **Bremen,** near the mouth of the Weser, ranks next to Hamburg in the amount of its commerce.

**Emigration; Religion.** — Over five million Germans have come to the United States during the last seventy-five years, and many have settled in Brazil, Argentina, and other countries of South America. New York City has a larger German population than any other city in the world except Berlin. The majority of the population are Protestants, though more than one third are Roman Catholics. The manner in which the clergy are maintained varies. The control of the universities is divided between the two churches.

The Elbe river at Hamburg.

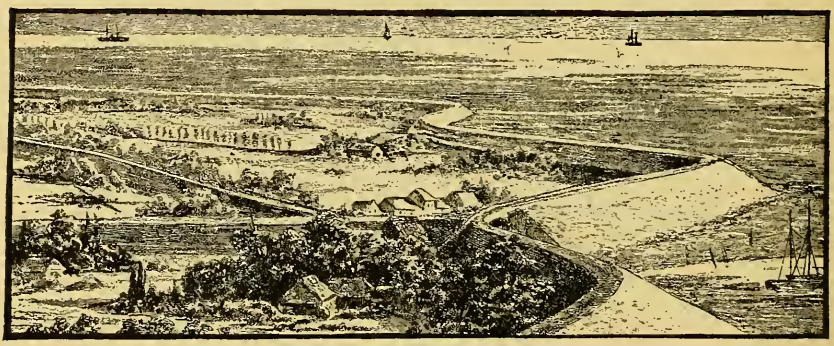
QUESTIONS AND TOPICS. — (1) Location, area, and population of Germany. (2) How old is the present German Republic? Describe the older form of government. Describe the present form of government. (3) Surface. Highlands. Lowlands. Divisions of the plain. Where is the best soil found? Explain the difference of climate between the eastern and western parts of the country. Name the chief rivers of Germany, and give their sources and directions. Canals. (4) Why are there few native wild animals in Germany? The forests. Varieties of trees. (5) What are the chief crops? What is said of beet sugar? What are the chief crops of the Rhine valley? Where is stock-raising carried on? What is said of it? (6) What minerals are found in Germany? In what locality is each found? (7) What minerals are the basis of manufacturing? Why? What are the leading German manufactures? Name others. (8) How do you explain the rapid growth of the cities in Germany? For what is Cologne noted? Aachen? Frankfort-on-the-Main? (9) Two leading ports. What advantage has Hamburg over Bremen?

# CHAPTER V

## BELGIUM AND THE NETHERLANDS

Answer the questions on BELGIUM AND THE NETHERLANDS, *page* 75.

**The Low Countries.** — Belgium and the Netherlands occupy the northern part of the central European plain bordering the North sea. About one third of the Netherlands, and the coast lands of Belgium, lie in the Rhine delta, and are protected from overflow by **sea walls**



Sea dike on the coast of Holland.

and drainage **canals**. The rest of the **surface** is composed of low plains formed from glacial drift (see *page* 19), and of the remains of an ancient highland region. On account of the situation of these countries in the lowest part of Europe they are often spoken of as the **Low Countries**.

**People and History.** — The Belgians and the Dutch are descended from **Low German tribes** — the Saxons, the Frisians, Jutes, and Danes, who in Roman times inhabited the northern part of the low plain. Their **languages**, the Flemish and the Dutch, are closely related. It was these same tribes that conquered Roman **Britain** (see *page* 11.) The two countries were united until 1830, when Belgium became a

separate kingdom. The Belgians are a mixed race and three languages are spoken. About two per cent of the people are German, and of the remainder, one half are French and one half Flemish. Dutch is the prevailing language of the Netherlands.

**Surface and Climate.** — By the terms of the treaty of peace with Germany, 382 square miles of land lying on the southeastern border of the two countries were restored to Belgium, thus bringing her total area up to 11,755 square miles. The population is about seven millions. The surface in the south and east is elevated, sloping down into the low coast plain. This plateau region is rich in forests and in coal and iron, building stone, and zinc. Copper and lead also are found. The lowland plain is a rich farming district. The climate is temperate and moist, the number of rainy days during the year averaging about 200.

The **Campine District**, between the upper waters of the Meuse and the Scheldt, was formerly barren because the soil has no underlying stratum of clay to hold the waters; but the industrious farmers have redeemed 270,000 acres by fertilization and irrigation and made it highly productive.

**The German Invasion.** — Belgium suffered more heavily from the war than any other country in Europe. When the German armies began the invasion of the country in August, 1914, they planned the total destruction of its industries. Hundreds of towns and villages were battered to pieces and the inhabitants driven out or killed. The machinery in the factories was carried away or destroyed, in order to prevent any competition with Germany after the war. Even the soil, which was fought over for four years by the contending armies, was plowed up by exploding shells, furrowed with trenches, and littered with the appliances of war, in such a manner that it will require years to restore it to its former value and fertility. With the same indomitable energy with which they entered the war, the Belgians are laboring to rebuild the country and to restore it to its former productiveness.

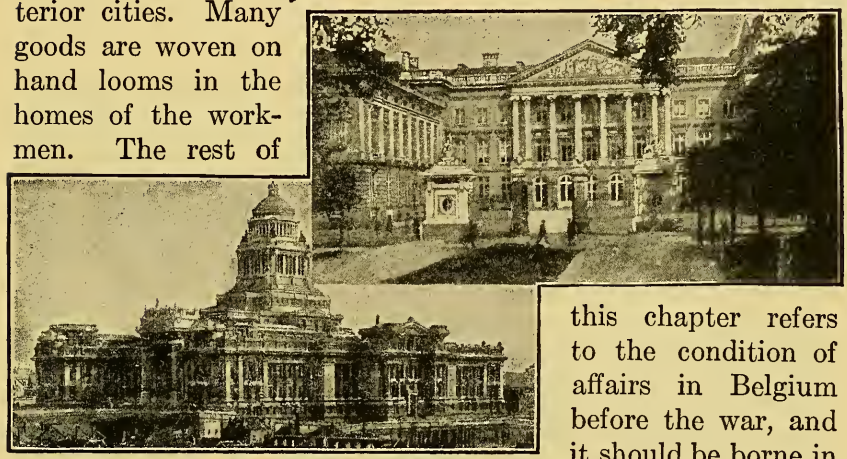
**Agriculture.** — About one fifth of the people are supported by farming and gardening. The **farms** are very small, mostly from two acres to twelve acres. Less than one third of these farms are owned by the farmers and the high **rent** tends to discourage agriculture. Cereals are grown, but more attention is given to the potato. The beet-sugar product is rapidly increasing and flax, colza (see *page* 61), and hops are important crops. Flowers and vegetables are profitably grown near the large cities. Much attention is given to **dairying** and the rearing of farm animals. Belgian butter is said to be the finest in Europe and along with eggs and poultry finds a good market in Great Britain.

Heavy draught **horses** of the Norman and Flemish breeds are raised for export, but many horses are imported, for Belgium is one of the few countries where horse flesh is an article of food. Swine and cattle are kept in large numbers and sheep are pastured on the Ardennes highland. About one sixth of the country is **woodland**, which is made highly productive by careful management.

**Minerals and Metal Manufactures.** — The southern part of Belgium was formerly one of the greatest mining and manufacturing regions of the world. The cities of Liege, Seraing, Charleroi, and Mons were busy making up the native iron and coal into pig iron, steel, machinery, cutlery, rifle-barrels, tools, railway supplies, and hardware of every sort. Lead, zinc, and silver were mined, and the quarries of sand and clay utilized in the production of different grades of pottery and glassware. But all these cities now lie in ruins, and all their industries are gone. Many of the fugitives have returned, and are patiently rebuilding their ruined homes, but the restoration of the great manufacturing industries will be the work of many years.

**Textile Manufactures.** — The Belgians are the oldest manufacturers of woolen goods in Europe and they are still expert in making cloths of every sort. Their linens and linen laces are noted throughout the world. The waters of the river Lys,

being free from lime, are well adapted to the retting of flax (see *page* 36), and the cleansing and scouring of both flax and wool. The cities of Brussels and Mechlin have given their names to carpets and laces, which are sold under these names in every civilized country. The textile industries, like those in metals, have been destroyed and must be rebuilt. Raw cotton for the textile mills is brought from the United States to the port of Antwerp and thence distributed by water and rail to the interior cities. Many goods are woven on hand looms in the homes of the workmen. The rest of this chapter refers to the condition of affairs in Belgium before the war, and it should be borne in mind when reading it that all the cities mentioned, except Brussels and Antwerp, were practically wiped out during the years 1914–1919. In due time the country will doubtless be restored to its former activities by the rebuilding of the cities and their industries.



1. The senate house. 2. The palace of justice.

**Trade and Transportation.** — Besides her rivers and canals Belgium has an excellent system of **railroads** built and owned by the state. There are also 6,000 miles of well-kept public **highways.** The number of her **ships** is very small, and the foreign trade is handled mostly by British, German, and Dutch vessels. In the value of her **foreign commerce** Belgium is sixth among the countries of the world. Her larg-

est trade is with France, Germany, Great Britain, and the United States.

The chief exports are iron and steel goods, machinery, coal, textiles, gun barrels and rifles, diamonds, and rubber. The imports are food and raw materials. The United States supplies her with cereals, cotton, kerosene, tobacco, and provisions.

**Cities.** — Belgium contains many old towns. **Brussels** is the capital and chief city, famous for its ancient Town Hall, for its picture galleries, its University, and its Botanic Garden. **Antwerp** is one of the leading commercial ports of Europe. It is strongly fortified and is the basis for the defence of the country. It has a fine old Gothic cathedral containing some of the paintings of **Rubens**, the greatest of Flemish artists.

**Government, Education, Religion, Colonies.** — Belgium is a constitutional monarchy. Laws are made by the king and a legislature composed of a **Senate** and a **House of Representatives**. The senators are chosen by the provinces and the representatives by the people. In Belgium a man may have more than one **vote** according to age, wealth, or educational qualifications, but none may have more than three votes. The Belgians maintain an excellent public **school system** with universities at Ghent, Brussels, Liege, and Louvain. Nearly the entire population is Roman Catholic in religion, while a few thousands are Protestants or Jews.

All denominations are partly supported by the state. As the independence of Belgium is guaranteed by the great powers of Europe she does not support a large army and has no navy. Belgium has only one colony, the **Congo Free State**, from which she obtains rubber, ivory, palm oil and nuts, and copal.

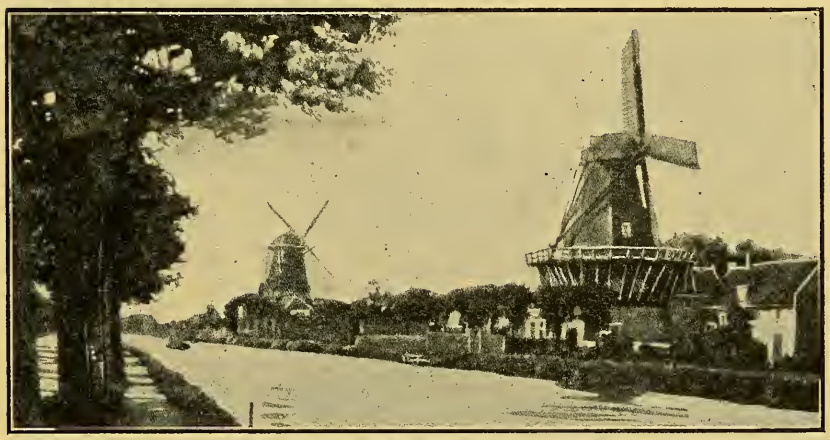
## THE NETHERLANDS

**Situation, Surface, Climate.** — The situation of the Netherlands on the border of the continent, its extensive coast line, and numerous islands have developed a nation of fishermen, sailors, and traders. The area exceeds that of Belgium, but the population is about two millions less. Holland, the name of the leading province, is often

applied to the whole country. The **climate** is moderate owing to the winds that blow steadily from the ocean for more than two thirds of the year, bringing almost daily showers.

A little more than one third of the surface of the Netherlands has been formed by the delta deposits of the Rhine, the Meuse, and the Scheldt, or has been reclaimed from the sea. The rest of the country consists of rolling **hills** of sand and gravel, and in the southeast a part of the ancient **highland** of central Europe, where the elevation slightly exceeds a thousand feet. In this section are a few **coal** mines. Clays and sandstone and a small amount of iron ore are the only other minerals.

**Agriculture.** — Having no forests and few mines Holland is an **agricultural** and **trading** nation. Her manufactures are of minor



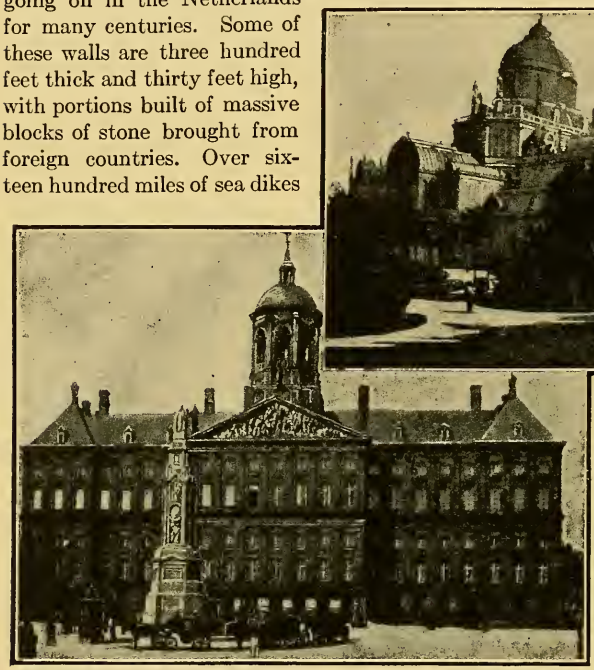
Canal and windmills in Holland, near Delft.

importance. The **farms** are larger than those of Belgium, half of them containing over thirteen acres each. There are many large estates. Rye, oats, and potatoes are the largest **crops**, twice as many acres being given to these as to all other crops together. **Potato flour** is a valuable export. Other farm crops largely exported are flax and beet-root.

The exports of fruits, flowers, vegetables, bulbs, shrubs, trees, and other garden and nursery products are greater in value than that of any other single product. Wheat is grown, but to supply the large population cereals and rye flour are imported

annually, to the value of about $200,000,000. The sea bottoms and alluvial delta lands form fertile pastures, and dairying is carried on with great profit. Butter, butterine, and cheese form six per cent of the exports. Alkmaar and Delft are the most noted butter and cheese markets. The latter town is to be remembered also for the manufacture of the fine grade of china known as "Delft."

The work of reclaiming land from the sea by building walls of earth has been going on in the Netherlands for many centuries. Some of these walls are three hundred feet thick and thirty feet high, with portions built of massive blocks of stone brought from foreign countries. Over sixteen hundred miles of sea dikes have been built at a cost of fifteen hundred million dollars. In some instances the sand dunes which have been blown up along the coast afford protection against the inroads of the sea. Building the dikes is the first step in reclaiming land. The second step is to get rid of the surplus water. This is done by means of canals into which the water is pumped, thus draining it off into the sea. Windmills used for lifting the water dot the land in every direction. They also benefit the farmer and manufacturer by furnishing power, at little cost, to saw wood, grind grain, and to turn the wheels of small factories. Over a thousand miles of canals have been built, intersecting the country at frequent intervals. Their banks are utilized as highways. The canals and rivers form the chief means of communication. The lower courses of the rivers are walled in by dikes, for all the streams of low Holland are higher than the adjoining land.



1. Industrial palace at Amsterdam. 2. The royal palace in the same city.

**Fisheries.** — Holland has important **herring** fisheries in the North sea which give employment to 20,000 men and are worth about $5,000,000 annually. "Dutch herrings" are a well-known commercial article. The yield of oysters along the coast is large. The Dutch fishing fleet visits also the cod banks of the Lofoten islands on the coast of Norway.

**Manufactures.** — Coal for the manufacturing industries of the Netherlands is brought chiefly from Great Britain and Belgium. Beer, alcohol, and liquors are the important manufactures. Many ships are built. The minor products are cloth, leather goods, machinery, sugar, vinegar, glass, and paper.

**Cities, Trade and Transportation.** — The metropolis of the Netherlands is **Amsterdam.** It is built on a chain of islands in a long arm of the Zuider Zee and is also connected directly with the North Sea by a ship canal. The islands are joined by three hundred **bridges,** and **canals** run through the streets. On this account it has been called the "Venice of the North." As a seaport it ranks next to Rotterdam, but its trade is equal to only one fifth that of the latter city.

Amsterdam has many handsome **buildings** with towering spires and steeples which, mingled with the masts of the ships that line the streets, give an impression different from any other city. Amsterdam is for its size one of the richest of cities. While it has extensive manufactures, its **money exchange** and **banks,** its university and museums are of special interest. The city is a heavy importer of rough diamonds from Africa, for it is the first city in the world in diamond cutting and polishing.

**Rotterdam** is the chief seaport. Its **location** at the mouth of the Rhine makes it a leading distributing point for goods shipped to the interior of the continent. **Steamship lines** from New York and from other leading ports of the world have their termini at Rotterdam. Like Amsterdam it has a multitude of canals and bridges. Among its manufacturing industries are many **distilleries. The Hague** is the capital of the nation although the sovereigns are crowned at Amsterdam. The word *Hague* means garden, and the spacious and beautiful capital is worthy the name. It is connected by a densely

wooded park about two miles in length with its suburb, Scheveningen (*skā'ven-ing-en*), the fashionable watering-place of Holland.

In 1899 a body of delegates from the leading nations of the world met at The Hague and established itself as a permanent **Court of Arbitration,** the work of which is to settle disputes among the nations of the world and thus avoid wars. A second meeting of this **International Peace Congress,** as it is also called, was held in 1907 at the suggestion of President Roosevelt. Its object was to consider the questions growing out of the Russo-Japanese war. A number of agreements were made in regard to the conduct of warfare.

On the beach at Scheveningen.

**Utrecht** and **Leiden** are cities familiar in American history. The former is the most important inland city, a railroad center and the seat of an old university. Leiden was the home of the " Pilgrim Fathers " for the eleven years preceding their immigration to New England.

**Government, Education, Religion.** — The government of the Netherlands is a limited monarchy. A majority of the people are Protestants, but there is entire religious liberty and all denomina-

tions receive support from taxation. The Dutch schools are excellent, and attendance is compulsory.

**Commerce and Colonies.** — For a time in the seventeenth century the Netherlands held the first rank as a sea power and **trading nation.** To-day she is fifth in the value of her foreign commerce. During her naval supremacy she established colonies in all parts of the world. **New Amsterdam,** and some of the smaller West India islands were settled, and, in the East Indies, Java, Sumatra, Celebes, the Moluccas, Banca and Billiton, Madura, and other small islands.

Holland's principal **trade** is the importation of the products of her colonies and their distribution to the other countries of the world. Over 4,000 Dutch ships engage in this carrying trade. The coffee, sugar, spices, tobacco, and tin that we buy in Amsterdam are brought from Sumatra, Java, and the Moluccas by Dutch ships, which carry back our cotton goods and other manufactures to the Indies. Other articles that the United States **imports** from Holland are diamonds, chemicals, and cheeses; our other **exports** are oils, breadstuffs, oleomargarine, provisions, flaxseed, and manufactured goods. The great bulk of the Dutch trade is with Germany, Great Britain, the East Indies, the United States, Belgium, and Russia.

QUESTIONS AND TOPICS. — (1) Belgium and the Netherlands; location. Race and language of the people; history. Area and population of Belgium. What languages are spoken? Religions of the country; how supported? (2) What are the natural divisions of Belgium? Seacoast. Rivers. Harbors. What kind of climate prevails? Where and why is irrigation necessary? (3) The two leading occupations. What crops are raised? What advantage has a small farm over a large one? What farm products are exported? Dairy-farming and stock-raising. What is the chief mineral wealth of Belgium? (4) What advantages have the people for the manufacture of linens? What cities are noted for lace-making? What is said of home-manufacture? What uses are made of potatoes? Transportation. Exports and imports. (5) Make a list of the leading cities of Belgium and state an important fact about each. How is Belgium governed? What does it obtain from its colony? (6) Situation of Holland. What are the divisions of the surface? How are the lowlands protected from overflow? Describe the climate of Holland. Compare its area and population with those of Belgium. With those of New York state. (7) Why is farming the leading occupation? What is said of Dutch gardening? What are the chief crops? Write a paragraph on the reclaiming of land. Describe the means of transportation in Holland. (8) What are the most important manufactures in Holland? Name other manufactures. Make a list of the four leading cities and write a short paragraph on each. What was the Hague Conference? For what is Leiden noted? (9) When was Holland the leading trading nation? What colonies does she own? What is the value of these colonies? How extensive is her commerce now? Describe the trade that she carries on with other nations. Exports and imports.

# CHAPTER VI

## THE SCANDINAVIAN COUNTRIES

Answer the questions on NORWAY AND SWEDEN; DENMARK, *page* 21.

**General Sketch.** — The Scandinavian countries occupy the Scandinavian peninsula and the peninsula of Jutland in the north of Europe and the numerous islands that fringe the coasts of these countries. The two peninsulas vary widely in surface and in the

A fiord on the Norway coast.

nature of their coasts. The **Scandinavian peninsula** is on the whole a plateau region, rugged and mountainous in the north and west, but in the east and south descending gradually by a series of plateaus and plains to the coast. The coast line is famous for its many fiords and estuaries. Glaciers and snow fields abound in the high mountain region. **Jutland** is flat and sandy and for the most part unindented.

The **people** of these three countries are closely related in race and have a common history. The spoken **languages** were the same in early times, but now differ slightly; the written languages of Norway and Denmark are still the same. Each country is now a separate constitutional monarchy.

The people of the Scandinavian countries were formerly called **Northmen.** Accustomed to the sea, they became daring adventurers. They established settlements in England and France. They founded the kingdom of Naples in Italy. They colonized Iceland and Greenland, and in the year 1000 reached the coast of America. During the next two centuries the Danes ruled over the whole southern coast of the Baltic sea. In recent years many thousands of Scandinavians have made their homes in our western states, where they have become prosperous farmers.

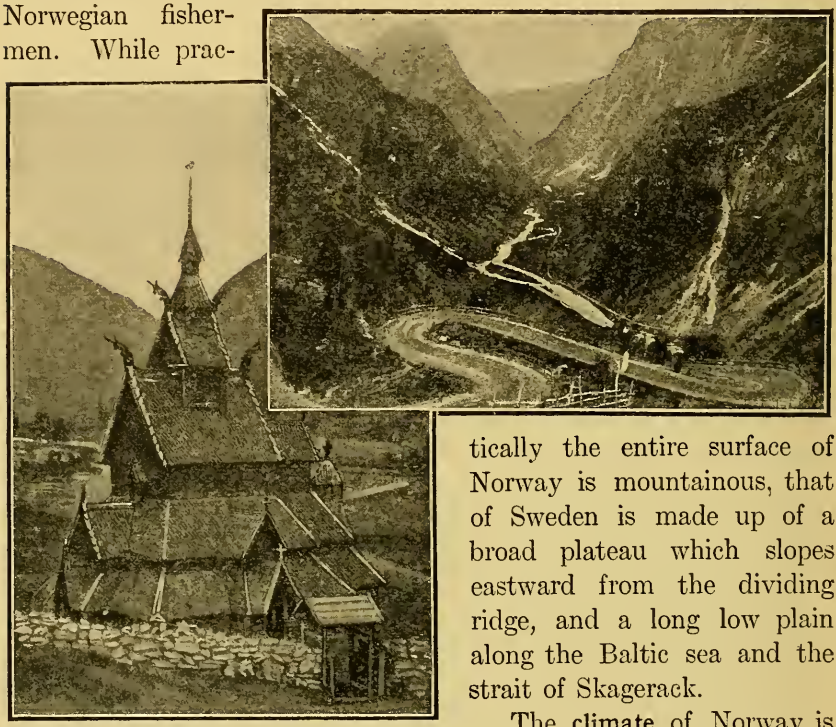
## NORWAY AND SWEDEN

**Location, Surface, Climate.**—The rugged Scandinavian peninsula occupied by Norway and Sweden is, next to Switzerland and Spain, the most mountainous region of Europe. These two countries have so many features in common that they can be most conveniently treated together. The extreme breadth of the **peninsula** is 450 miles; the length is about 1,150 miles—a greater extent north and south than that of any other European country except Russia. **Norway** is the most northern country of the continent, extending several degrees within the Arctic circle. Its area is 124,000 square miles and its population 2,400,000. The area of **Sweden** is 173,000 and its population 5,500,000.

Although each of these countries is considerably larger than the British Isles, both together have far less **soil** available for agriculture, only one twentieth of the area of Norway and less than one tenth of that of Sweden being fit for cultivation. The rest is made up of mountainous **ridges** and high **plateaus** deeply cut by streams which widen into fiords as they approach the sea. Many of these fiords are navigable, extending inland from fifty to one hundred miles and affording easy access to the settled regions. The towns and villages of Norway almost without exception are built near the sea.

In the north the **Kiolen** mountains form the boundary between the two countries and are the chief watershed. Near the western

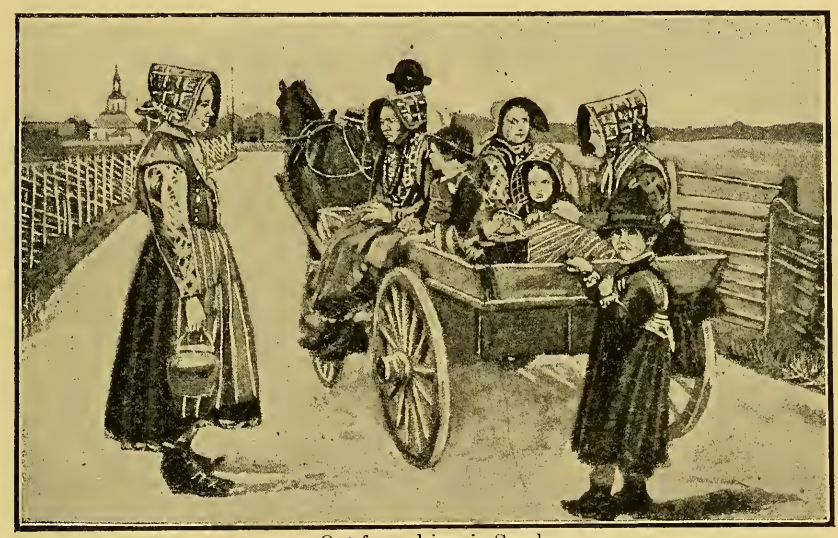
coast isolated mountain peaks range from 6,000 to 8,000 feet in height. The mountain ridges descend abruptly into the sea, their scattered tops appearing in the thousands of **islands** which fringe the coast of Norway and which form many safe **harbors** for the multitude of Norwegian fishermen. While practically the entire surface of Norway is mountainous, that of Sweden is made up of a broad plateau which slopes eastward from the dividing ridge, and a long low plain along the Baltic sea and the strait of Skagerack.



1. A mountain valley in Norway. A winding highway follows this valley to the top of the mountain. 2. An ancient pagan church in Norway built in the eleventh century.

The **climate** of Norway is mild for the latitude. The harbors are free from ice, and open all the year round. The **rainfall** is heavy in the north, decreasing toward the south. The snowfall of winter is light along the coast but heavy among the high mountains, where **glaciers** are formed which plow their way through the valleys, melting as they approach the sea. **Sweden**, being on the eastern side of the mountain ridge, is cut off from the genial westerly

winds and has a climate subject to extremes of temperature. The winters are long and severe, the ports and the mouths of the rivers, unlike those of Norway, being closed by ice for six months. The rainfall is less than half that of Norway. It is abundant on the western coast, but the eastern coast is quite dry.

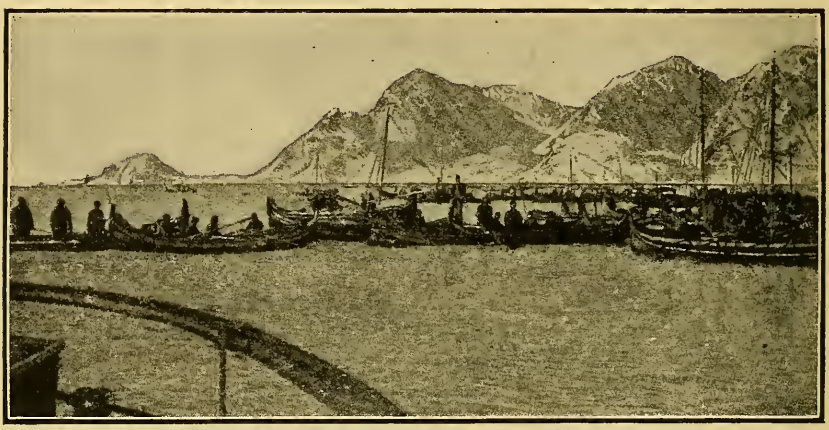


Out for a drive, in Sweden.

**Forests** — About one half the surface of Sweden and one fourth that of Norway is covered with forests of pine, fir, and spruce. Owing to slow growth in the cold climate, the wood is very hard and of excellent quality for **ship-building**, a characteristic industry of a people whose home for ages has been the sea. The numerous swift mountain streams furnish power for thousands of **lumber mills** and factories.

The timber of southern Norway has been freely cut on account of convenience of shipment through the port of Christiania. The annual product is now only one sixth that of Sweden. The two countries together furnish about two fifths of the lumber supply of Europe. Mining timber, building materials, wood-pulp, paper, furniture, wooden ware, and matches are some of the forms of lumber which make up one half the total exports of the two countries. The value of the lumber products of Sweden equals one third the total manufactures.

**Fishing.** — The fishing industry is as important to Norway as lumbering is to Sweden, employing fully 100,000 men, or one twentieth of the population. With a population of only 2,000,000, Norway has as many men engaged in fishing as Great Britain. **Fishing villages** border the fiords all along the coast.



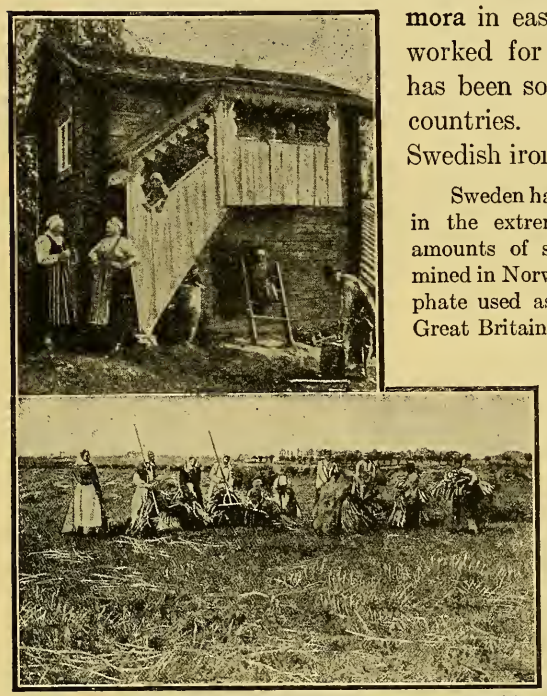
Fleet of herring boats on the coast of Norway.

Cod, mackerel, and herring are the principal catch. Salmon, sea trout, lobsters, and oysters abound in the fiords and coast waters. Trondhjem (*tron'-yem*), a busy seaport of nearly 40,000 inhabitants and third in size among the cities of Norway, is the most important fish-packing center.

**Agriculture.** — Farming is relatively unimportant in Norway, but in Sweden it employs about one half of the people. Only along the southern coasts of Norway are there tracts of arable land. Here **grain** and **potatoes** are raised and a considerable number of farm **animals.** Both Norway and Sweden are obliged to import grain, meat, and other provisions. The southern and western provinces of Sweden contain the most productive farm lands, bearing good crops of oats, rye, and vegetables including the sugar-beet. Especial attention is given to **dairying.**

Dairy schools are maintained and modern machinery is used. Swedish butter is noted for its excellence and forms one tenth of the exports. The centrifugal cream separator, now widely used in all countries, is a Swedish invention.

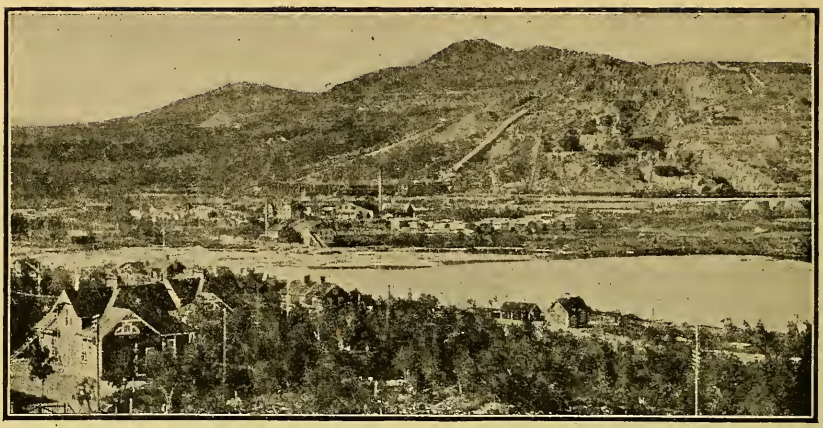
**Mineral Wealth.** — Iron constitutes the chief mineral wealth of Sweden, although gold, silver, copper, lead, and zinc are mined in paying quantities. The **iron ore** from the Swedish mines is the richest in the world, yielding 70 per cent pure metal. The mines of **Dannemora** in eastern Sweden have been worked for centuries and the ore has been sold to all iron-producing countries. Three fourths of the Swedish iron ore is exported.



1. A peasant home in Dalecarlia in Sweden. 2. Raking and binding grain in Sweden.

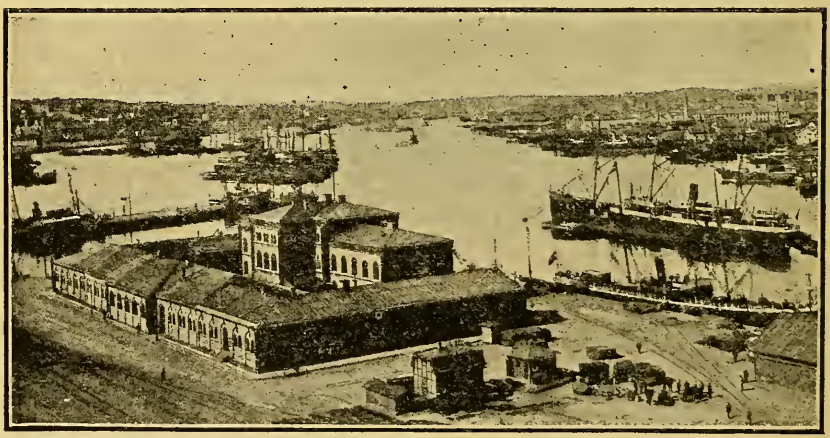
Sweden has little coal and that is found in the extreme southern section. Small amounts of silver, copper, and iron are mined in Norway; and apatite, a lime phosphate used as a fertilizer, is exported to Great Britain.

**Manufactures and Trade.**—There are few manufactures of importance. The only **manufactures** of metals of consequence are at Dannemora and Norrköping, in Sweden, where iron ore is made into bars and blooms for export, and into sheet iron, wire, nails, machinery, tools, and hardware for home use. Coarse cloths are made from cotton, flax, and wool; flour, tobacco, brandy, and beer are also manufactured; but these do not fully supply the home market. Coal and coke, wool and yarn, coffee, tea, sugar, and oils are large imports in both countries. The **United States** sells to Norway and Sweden wheat, provisions, raw cotton, machinery and locomotives. Among our **imports** are wood-pulp and matches. Sweden makes and exports more matches than any other country.



The mountain of iron at Kiruna in northern Sweden. Notice the mines at various levels and the inclined chutes for transferring the ore to the railroad.

**Transportation.** — The rivers of these countries are generally not navigable. In southern Sweden, however, there is a chain of large, navigable lakes which have been utilized in making canal connection

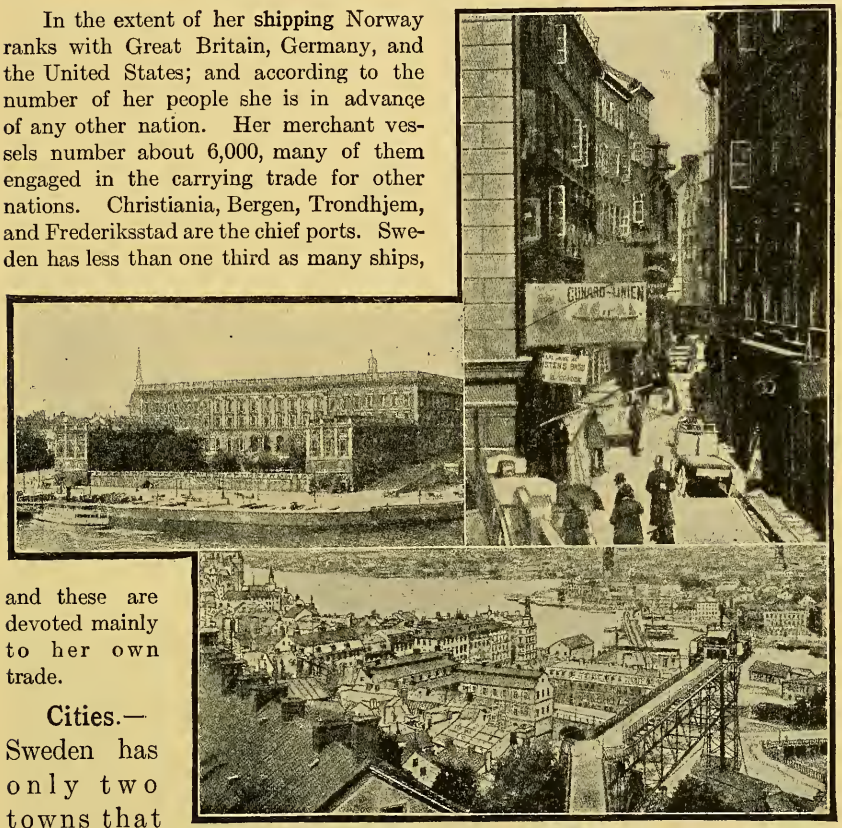


The port of Gothenburg.

between Stockholm and Gothenburg. This is important for Swedish trade, as the latter port is always free from ice. There are about

7,800 miles of railroads in Sweden and 1,600 miles in Norway. The northern part of Sweden is crossed by a line which terminates at **Victoria Haven**, the most northern railway station in the world.

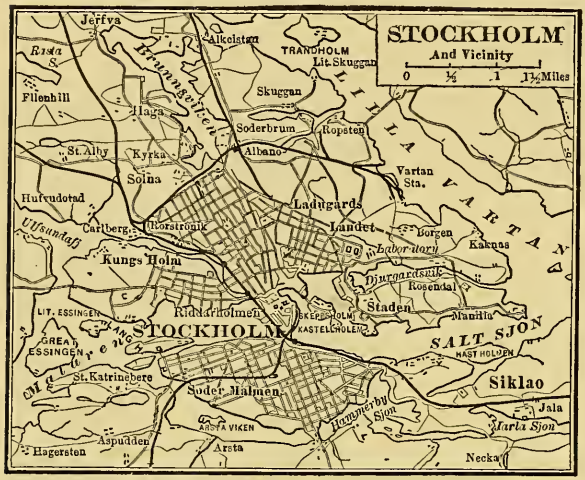
In the extent of her **shipping** Norway ranks with Great Britain, Germany, and the United States; and according to the number of her people she is in advance of any other nation. Her merchant vessels number about 6,000, many of them engaged in the carrying trade for other nations. Christiania, Bergen, Trondhjem, and Frederiksstad are the chief ports. Sweden has less than one third as many ships, and these are devoted mainly to her own trade.




Views in Stockholm: 1. The Royal Palace. 2. An old street. 3. An arm of lake Malar and bridges.

**Cities.**— Sweden has only two towns that exceed 100,000 population, Stockholm and Gothenburg, Norway has only one, Christiania. The chief cities of both countries are also seaports. **Stockholm** is the capital and metropolis of Sweden. Originally built on an island it has extended to other islands and the mainland. The several parts

of the city are connected by bridges, and many of the streets have canals running through them.




Stockholm has museums, a university, and many old historic buildings. **Gothenburg** is the second city in size, but the chief seaport in Sweden. It is a well-built modern city and has a fine university. Other important towns are **Malmö** and **Norrköping.**

**Christiania**, the capital of Norway, is situated at the end of a long fiord, dotted with many beautiful green wooded islands and has a splendid harbor. It is noted for its museum of antiquities of the days of the Northmen.

Fish market in the harbor of Bergen.

**Bergen**, the second town, noted for its fishing trade, is a very old town.

**Government, Education, Religion.** — Norway and Sweden are limited monarchies. Both have **legislatures** chosen by the people, which have the sole power to vote taxes and, with the consent of the king, to make laws. In Norway the legislature consists of one house only, while in Sweden there is both an upper and a lower house. The king is the chief executive, but must act through a body of ministers chosen by himself. In both countries the **Lutheran** church is recognized as the state church and its expenses are paid partly out of the public funds. Religious freedom is granted to all denominations. Both countries maintain public free schools with numerous institutions for higher instruction.

QUESTIONS AND TOPICS. — (1) Describe the situation of the Scandinavian countries. In what way are their languages alike? Who were the Northmen? Describe their settlements and colonies. (2) Why is it convenient to study Norway and Sweden together? How does each compare in size with New York? Compare the coast of Sweden with that of Norway. How do these countries differ in surface? In climate? (3) Why can Sweden manufacture lumber and not iron? Why is Norway more extensively engaged in the fishing business than any other country? Compare the farming industries of these two countries. Why are they more important in Sweden than in Norway? What products are furnished for export? (4) What are the chief minerals of Norway? Of Sweden? In what part of Sweden is the best iron found? How is transportation provided for? Into what forms is iron manufactured? (5) Make a list of the exports and imports of these countries. Describe their trade with the United States. Compare the transportation facilities of the two countries. How does their shipping compare? (6) Which are the leading cities of Sweden? Of Norway? Write a paragraph about Stockholm. What is said of Christiania? Speak of government, education, and religion in each country

## DENMARK

**Location, Surface, and Climate.** — Denmark occupies the extreme northern part of the European plain. With the exception of Holland, it is the lowest land in Europe, but it is entirely above the sea level, rising in places to 600 feet. The kingdom consists of the peninsula of **Jutland** and numerous **islands** lying between the strait of Cattegat and the Baltic sea. The islands are fertile agricultural regions. The area of Denmark is about 15,000 square miles, two thirds being continental and one third insular, and the population exceeds 2,500,000.

The **climate** is moist and mild in summer, but cold in winter as it is exposed to the winds from over the icy waters of the Baltic sea.

**Industries and Agriculture.** — Of the total area of Denmark, a little over one third is cultivated land. One third is pasture and meadow; the remainder, principally the mainland to the north and west, consists of forests, peat bogs, sand wastes, and heather. Much attention is given to the sugar-beet. Butter and eggs are, however, the chief **farm products**, forming over one half the exports of the country. Next in value among the products and **exports** are horses, cattle, swine, goats, meats, hides, beans, and fish.

The Danes take every care to make their products the best. Dairy inspection is provided by the government and by agricultural societies. The horses, live cattle, and meats exported are of the very best quality.

**Other Occupations.** — Fishing and trade are the natural occupations of the Danes. Their **fishing grounds** are in the North and Baltic seas. Over 4,000 merchant vessels sail under the Danish flag, many of

Thorwaldsen Museum, Copenhagen. The museum was presented to the city by the famous sculptor, and contains the best specimens of his work.

them engaged in the carrying trade for other nations. With the exception of beet sugar, brandy, and beer, the manufactures of the country are small. Denmark's largest trade is with Germany, Great Britain, and the United States. From this country she buys among other things grains and oil cake, and sells us hides, skins, and dairy products.

**Cities.** — The capital and metropolis of Denmark is **Copenhagen**, situated on the eastern shore of the island of Zeeland. The narrow strait between this island and the mainland of Sweden is the main entrance of the Baltic sea. Copenhagen is strongly fortified and is sometimes called the "Keeper of the Baltic" because it guards the entrance. It is a beautiful city finely laid out with many parks and gardens. It is the only large city in Denmark and handles nearly all the commerce of the country.

Copenhagen contains a university and is the seat of several learned societies. It was the birthplace of **Thorwaldsen**, one of the most famous of sculptors. Another famous citizen was Hans Christian Andersen, the story teller. **Aarhuus**, (*ôr'-hōōs*) the second city, is the chief town and port on the mainland of Jutland. **Odense**, a very old city, is the principal town on the fertile island of Fyen.

**Religion, Education, and Government.** — Nearly the entire population belong to the **Lutheran** church, which is the established religion of the state. Members of other denominations have entire freedom of worship. The laws of Denmark are made by a **National Congress** consisting of a Senate and House of Commons. The laws are executed by a council appointed by the king. Free public **schools** are maintained in every town and country district in Denmark, and all children from seven to fourteen years of age are compelled to attend. Numerous high schools, professional schools, and colleges are provided by the state.

A native of the Faroe islands.

**Colonies.** — The colonies of Denmark in Europe are Iceland and the **Faroe islands.** Both of these are of volcanic origin. The latter have

an area of 500 square miles and a population of 9,000. They contain some farm land and raise fine-wooled sheep. On these islands are found vast numbers of sea fowl from which **eider-down** is obtained. **Iceland** contains over a hundred **volcanoes**, some of which are active. Mount Hekla is the most famous of them. **Earthquakes** are frequent and destructive. The area of the island is 40,000 square miles and its population nearly 85,000. Sheep and cattle are raised for export. Other **products** and exports are fish, cod-liver oil, furs, eider-down,and feathers. The annual **commerce** is valued at several million dollars. Foxes and polar bears are common and the waters abound in whale, seals, and fish.

Iceland was settled by Northmen over a thousand years ago. It was sailors from Iceland who settled Greenland and who first reached the shores of **America**. The island early became the seat of considerable learning and culture and has an ancient collection of myths and tales called **Eddas** and **Sagas**. The old Saga language is still spoken. Education is universal. The **religion** is the Lutheran.

QUESTIONS AND TOPICS. — (1) Compare the location and surface of Denmark with that of Holland. What are the natural resources of Denmark? Why is farming the chief occupation? What products are produced for export? Name other important products. (2) What can you tell of the fishing industry? Of the carrying trade? Of manufactures? (3) What is the capital of Denmark? Why is its location important? Name and describe two other leading cities. (4) Government. How is the National Congress composed? Name the colonies of Denmark. Write a paragraph about Iceland. What difference do you notice between the Danish people and the Dutch?

**The Danish Plebiscite Areas.** — It is provided in the Treaty of Versailles that the people of certain areas shall be allowed to decide by a popular vote as to which of the bordering nations they shall be joined. The Danish "Plebiscite" area is the province of Schleswig, which was forcibly taken from Denmark and annexed to Germany in 1866. This province is a little smaller than the state of Delware and has about the same number of people. The Plebescite has been taken and the land has been nearly equally divided between Germany and Denmark.

# CHAPTER VII

## ITALY

Answer the questions on ITALY, *page* 108.

**Location and Surface.** — Italy occupies the central one of the three **peninsulas** which project from southern Europe. In **shape** the peninsula resembles a riding boot. The **area** of Italy, including the islands of Sicily and Sardinia, is 111,000 square miles and the **population** is 35,000,000. Its extensive **coast line** is lacking in good harbors because of the absence of tides to carry away the deposits from the rivers. Venice has the best harbor on the east side, Genoa on the west, and Taranto on the south. Italy is isolated from the rest of Europe by the **Alps**, which for many centuries could be crossed only at the high mountain passes; but now six railways cross these mountains by means of numerous **tunnels** or by easy grades over the high passes.

Italy is traversed by the rugged chain of the **Apennines**, 800 miles in length. In the south they extend into Sicily, reaching their highest point in Etna, over 10,000 feet; in the north they curve westward around the gulf of Genoa and then turn north to join the Alps; with them they enclose the valley of the Po on three sides. Everywhere the sides of the Apennines are terraced and planted with vineyards and olive groves.

The **Lombardy plain**, as the valley of the Po is called, is the chief lowland region of Italy. It widens toward the sea where the river has built up a rich **delta** which affords productive rice fields. With the exception of the Po valley and smaller river valleys, and a narrow coast plain, the **surface** of Italy is rugged or mountainous; so also is that of Sicily, Sardinia, and its other islands.

**Climate.** — The climate is delightful. The protection afforded by the high Alps and the influence of the Mediterranean waters so moderate the temperature that the winters are mild and the summers never oppressively hot. The northern plain, being encircled by mountains, has a scanty **rainfall**, but heavy rains in the mountains themselves furnish water for **irrigation** and make this plain available for agriculture. The peninsular part of Italy is better watered, because the central ridge of highlands condenses the moisture from both east and west. The rain comes, however, mostly during the autumn and winter, and artificial irrigation is extensively practised throughout the country.

**History and People.** — In ancient times the peninsula contained many races, which the Roman government united into one nation. At the breaking up of the Roman Empire, **barbarians** invaded the country. The **Venetii**, pressed by the Huns, sought refuge on some small islands in the Adriatic and built a village which grew into the famous city and republic of Venice. In the south the kingdom of **Naples** was established. The central part of the country was ruled by the Pope. For centuries the little state of Italy was devastated by the contending armies of Spain, France, and Germany. In 1860 seven of these states joined to form the first "**Kingdom of Italy.**" In 1866 Venice was added. After the Franco-German war the states of the church were annexed and a "United Italy" was proclaimed with Rome as its capital.

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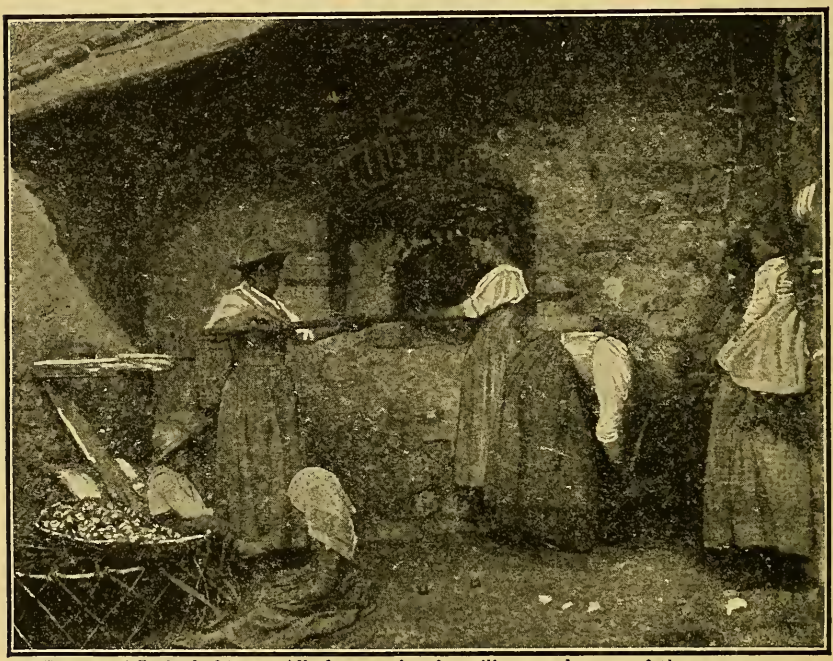
SWITZERLAND. — (1) Describe the location of Switzerland in latitude and longitude. What countries surround it? What natural boundary has it on the south? What two large lakes on its borders? (2) What four large rivers rise among the Alps? In which direction does each flow? (3) What is the length of Switzerland in miles? The breadth? How does it compare in size with your state? (4) What is the capital of this country? Locate Basel, Zurich (*zōō′-rik*), St. Gall, Lucerne, and Lausanne. (5) Draw an outline map of Switzerland and locate on it the chief rivers, lakes, and cities.

ITALY. — (1) What is the range of latitude of Italy? How does this compare with Spain? How does it compare with your state? What countries of Europe border Italy? What seas partly surround it? What gulfs and straits on the coast? (2) What islands west of Italy? To what country do they belong? What river, lakes, and mountains in the north of Italy? Name a tributary of the river. What famous river in central Italy? (3) What mountains extend through Italy? How do they affect the climate? Where is mount Vesuvius? Etna? Stromboli? (4) What inland cities in the north? What two seaports? What seaports on the east coast? On the west coast? Locate Florence, Bologna, Trieste, Leghorn. What is the capital of Italy? What city south of Rome? What cities on the opposite sides of the strait of Messina? What can you tell about these cities? Locate Catania and Palermo. On what waters could one sail from Venice to London? From Genoa to Constantinople? (5) On an outline map of Italy write the boundaries and fill in the names of the rivers, lakes, mountains, and cities.

ITALY
AND
SWITZERLAND
Scale of Miles
0 50 100 200
Largest City in each Country ____ Rome
Cities next in importance ____ Genoa
Capitals ____ ☆
Railroads ____
GERMANY
AUSTRIA
SWITZERLAND
JUGOSLAVIA
CORSICA
SARDINIA
SICILY
MALTA
Munich
Salzburg
Zurich
Constance
Innsbruck
Klagenfurt
Basel
Berne
Lucerne
Udine
Trent
Bolzen
Milan
Brescia
Verona
Vicenza
Padua
Venice
Trieste
Fiume
Turin
Genoa
Parma
Modena
Ferrara
Ravenna
Bologna
Rimini
Florence
Pisa
Leghorn
Siena
Ancona
Perugia
Ascoli
Pola
Zara
Sebenico
Spalato
Ragusa
Bantaluka
Serajevo
Mostar
Elba
Bastia
Calvi
Corte
Ajaccio
Sartena
Bonifacio
Str. of Bonifacio
Civita Vecchia
Ostia
Rome
Aquila
Chieti
Ortona
Viste
Campobasso
Foggia
Bartletta
Bari
Andria
Naples
Mt. Vesuvius
Salerno
Potenza
Brindisi
Lecce
Taranto
Gulf of Otranto
Gaeta
Ischia
Capri
Terranova
Sassari
Alghero
Oristano
Cagliari
Carloforte
Castrovillari
Cosenza
Catanzaro
Stromboli Vol.
Ustica I.
Lipari Is.
Trapani
Palermo
Messina
Reggio
C. Spartivento
Str. of Messina
Mt. Etna
Catania
Girgenti
Syracuse
Lacata
Modica
Alcamo
Bizerta
Bone
C. Bon
Tunis
Pantellaria
Gozzo
Valetta
(To Gr. Br.)
Gulf of Genoa
Taranto
Mediterranean Sea
Tyrrhenian Sea
Adriatic Sea
Ionian Sea
Algeria
Tunis
Longitude East from Greenwich
Williams Engraving Co., N.Y.

**Government, Education and Religion.** — Italy has the constitutional form of government. The **Senate**, or upper house of the Parliament, is chosen by the king. The **Chamber of Deputies**, or lower house, is elected by the people according to districts and population. The king and his body of chosen ministers are the executive power. The education of children has been greatly neglected in the past, but



Women of Italy baking. All the people of a village make use of the same oven.

Italy now has compulsory **education** and a system of free public schools. For higher education there are twenty-one **universities**, nearly all of them over 500 years old. The universities of Bologna and Padua are the oldest; that of Naples is the largest, having over 5,000 students. The Italian is the **language** of all but a very small part of the inhabitants. The people of Italy are nearly all Roman Catholics. Nominally the Catholic Church is the state church.

**Resources and Industries.** — The chief natural wealth of Italy is her **soil** and the adaptability of the **climate** to the cultivation of silk, the vine, the olive, and tropical fruits. The valley of the Po is the only region where extensive **field crops** are grown. Its soil is wonderfully fertile. The grass grows so rapidly where water is supplied that the meadows may be mown from six to nine times a year, so that dairying is an important industry. **Cheese** is the chief dairy product and there are several well-known brands in steady demand throughout the world. Many cattle are fattened for export to France. In southern Italy **sheep** are pastured, mutton being a favorite meat; but not enough wool is produced to supply the demand.

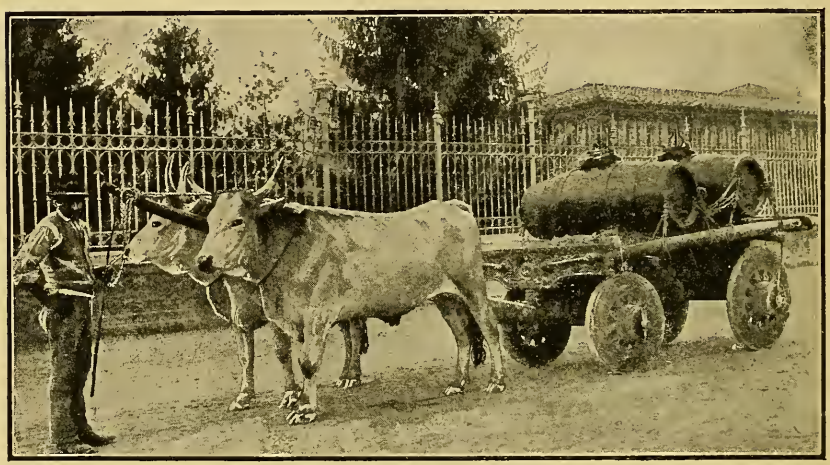
Italian women preparing herbs for market.

The leading crops of the Po region are wheat, corn, and rice. Grains are grown everywhere, but not in sufficient quantities to supply the population. Flax, hemp, and tobacco are raised in northern and central Italy; in the south and in Sicily, oranges, lemons, figs, and nuts are valuable crops, and are exported in large quantities.

**Silk** is the most important commercial product of Italy. The silk industries are carried on all over the country, but most extensively in the north. They consist principally in caring for silk-worms and in preparing the threads for weaving. For this work great quantities of silk cocoons are imported from Japan, China, and other countries in Asia.

In the export of silk Italy ranks next to China and Japan, the average annual value of the product being about $125,000,000. The city of Milan is the chief silk market in Europe. The silk exported is shipped from Genoa, or is sent north by rail to the great manufacturing countries. The weaving of silk fabrics is a rapidly growing industry, chiefly at **Como**, where a school for operatives is established.

The **vine** and the **olive** tree are plants characteristic of all the Mediterranean countries and about one fifth of the area of Italy is devoted to their cultivation. **Lucca** produces the best oil. Olives



Transporting wine at Bologna.

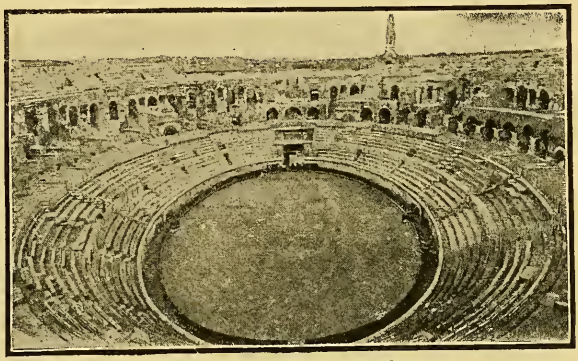
and olive oil form the second largest export and are sent to all civilized countries. In these products Italy is the leading country of the world.

Olive oil in Europe takes the place of butter, and is used in cooking. Cotton-seed oil is imported from the United States into France and Italy, and after refining is sold again as olive oil. Some of it can hardly be distinguished from the genuine article.

In wine Italy ranks next to France, but the Italian wines are inferior to the French. It is a common beverage throughout Italy and forms a valuable export. **Messina** and **Palermo** are the chief shipping points for fruit.

**Fisheries.** — Nearly 136,000 men and 29,000 vessels of all kinds are employed in the fisheries. These are partly in the Mediterranean sea and partly in foreign waters. The **tunny**, a fish often weighing over 1,000 pounds, is the chief variety caught in the Mediterranean. The fisheries cannot supply the home demand, and cured fish is one of the leading imports. **Coral** and **sponges** are found along the Italian coasts. The Italians are the chief manufacturers of coral jewelry.

The **mineral wealth** of Italy consists mainly in the sulphur of Sicily and the white statuary marbles of Carrara. Borax is found in the volcanic districts. Good iron ore occurs in the island of Elba, copper in Tuscany, and lead and zinc in Sardinia. No true coal is found, but considerable amounts of **lignite** are mined and used in manufacturing.



Remains of an old Roman theater.

Of **manufactures**, the silk, woolen, and **cotton products are the most important.** Venetian glass, Leghorn straw goods, coral jewelry, and cutlery are made in Milan. Native hemp is made into cordage, and steel rails, locomotives, and machinery are manufactured near Genoa, but most iron, steel, and other metal goods are imported. Porcelain and mosaic work are made in Florence, and hand lace, alabaster and marble sculptures, and wood carvings in many places. The Italians exhibit taste and skill in the making of articles of an artistic nature.

**Trade** is carried on mainly with the neighboring countries; but cotton, wheat, tobacco, and farm machinery come from the United States, and coal, woolens, and steel goods from England. France, Germany, and Switzerland buy the Italian raw silk and the United States takes about one third of the sulphur.

**Transportation** is provided for by over 10,000 miles of **railways** and a system of excellent **highways** many of which have been in existence since the old Roman days. The railroads traverse the peninsula on both sides of the Apennines with frequent lines crossing. A famous **mail route** connects the seaport of Brindisi with London and Paris and transfers the mails to steamers bound to and from the Indies. Other routes are mentioned (see *page* 135).

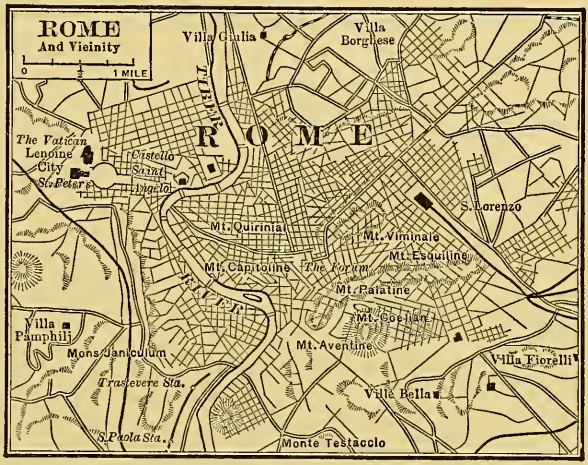
There is little water **communication**; boats ascend the Po as far as Turin. The Arno is navigable to Florence, the Tiber to Rome, and other smaller streams in parts of their courses. During the Middle Ages Italy was the foremost nation of

Naples and mount Vesuvius.

the world in the number of her ships and in the value of her commerce, but her **merchant fleet** is now fifth in size among the nations. It carries the greater part of her own goods, and a considerable amount for other countries. Genoa and Naples are the most important **seaports**. Next to these in the value of their trade come Leghorn, Messina, Palermo, Venice, and Catania.

**Cities.** — Italy has eleven cities with over 100,000 population and about fifty containing from 25,000 to 100,000. The Italians are fond of city life and are willing to go back and forth to their work in the country for the sake of living in town. **Naples**, the largest city, is remarkable for its blue skies, its blue crescent-shaped harbor, its terraced hillsides, and the neighboring volcano, Vesuvius (see *page* 14).

The country surrounding Naples is dotted with villages buried in groves of orange and lemon trees, and with hills set with vineyards. Thousands of tourists visit Naples every season to climb the volcano, to view the excavated cities of Pompeii (*pom-pā'-yē*) and Herculaneum, and to study the curious life of the Neapolitan streets. Of especial interest are the excavations at Pompeii, where palaces, temples, theaters, and streets have been exposed to view just as they were two thousand years ago.




**Milan** and **Rome** have each nearly half a million population. The former, at the intersection of important lines of travel, is a progressive city with modern buildings, stores, wide streets, and beautiful parks. Its cathedral of white marble, adorned with thousands of minarets and statues, is the chief glory of the city. Rome, the "**Eternal City**," the capital of ancient Rome and modern Italy, dates its existence from 753 B.C. For

Sorting silk cocoons at Milan.

centuries it has been the residence of the Pope. It contains the cathedral of St. Peter, the largest Christian church in the world, and the Vatican.

**St. Peter's** was designed and built by Michael Angelo, Italy's greatest architect and sculptor. Standing within one may look upward 440 feet to the summit of the dome decorated with mosaics, each composed of thousands of pieces of colored marble, so skilfully laid together as to look like pictures painted on canvas. The palace of the Pope, the **Vatican**, is a world by itself. Surrounded by spacious parks and gardens, it contains twenty courts, eight great staircases, and 11,000 rooms. It contains the famous **Sistine Chapel**, celebrated for wonderful paintings by Michael Angelo and Raphael, and for its halls and corridors, filled with sculptures, paintings,

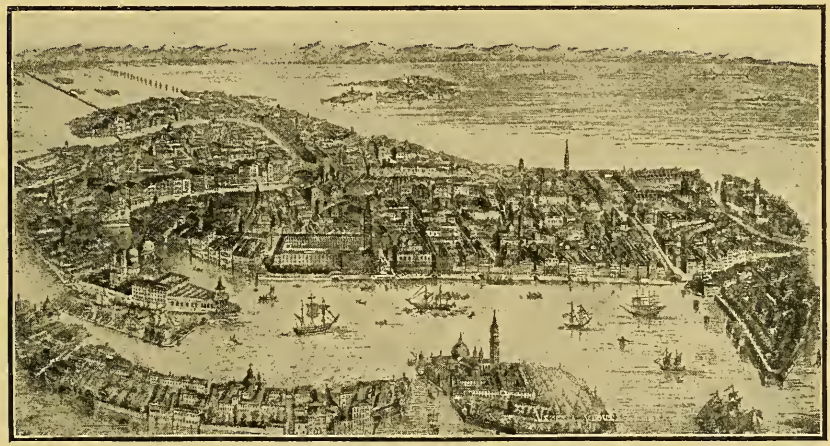
St. Peter's and the Vatican.

tapestries, vases, and jewels. St. Peter's and the Vatican are frequented by art students from all countries, who go there to study the works of the famous artists and sculptors. No less noted than these comparatively modern structures are the ruins of ancient Rome. The most magnificent of these is the **Colosseum**, a great stone amphitheater seating 100,000 people, where men and beasts fought for the amusement of the Roman populace. Near the Colosseum is the **Forum** where the Roman citizens met to transact public business and to listen to the speeches of their great orators. The present capitol stands on the site of the citadel of ancient Rome. The Rome of to-day is much like other Italian cities, and is bustling with life and thronged, not only with Italians, but with visitors from every nation. Outside of Rome are the **Catacombs**, consisting of caves and tunnels hollowed out of the

rock, which were used as tombs and as hiding places by the persecuted Christians of early times.

**Venice**, the "Queen of the Adriatic," the "City of the Sea," is built on a hundred small islands joined together by 400 bridges. It has canals for streets and the principal means of conveyance are the gondolas, or long, narrow skiffs, each propelled by a single oar.

Venice at one time was the richest commercial state in the world. Its merchant ships traded with all parts of Europe and with the countries of the East.



A bird's-eye view of Venice.

On the "Rialto," or bridge crossing the Grand Canal, merchants and bankers met for the transaction of business. The rulers of the city were called Doges; the palace in which they lived and the cathedral of St. Mark are the most noted structures in the city.

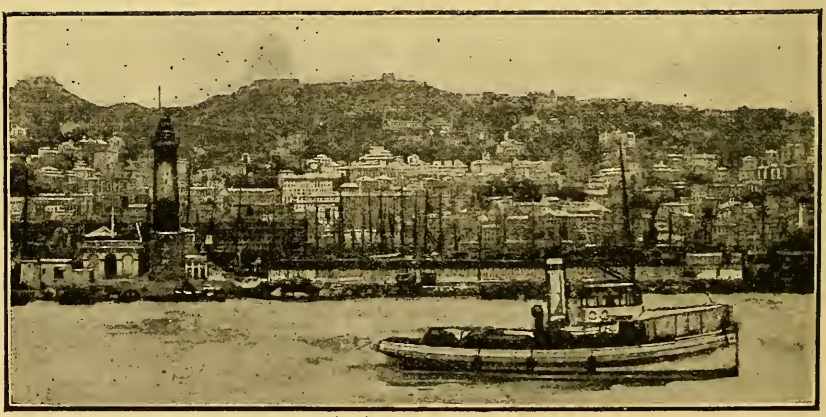
**Florence**, the "Beautiful City," stands on the banks of the Arno in the province of Tuscany. It has a famous Cathedral and Bell Tower. It was formerly the chief center of Italian art, and some of the finest paintings in the world are still preserved in its palaces and galleries.

West of Florence is **Pisa**, with its famous Leaning Tower, from whose summit Galileo (*gal-i-lē'-o*) first determined the laws of falling bodies. Northward along the coast is **Genoa**, the birthplace of Columbus and the old commercial rival of

Venice. The city is built on terraced hillsides along the harbor, back of which are the Apennines. The stately houses that line some of the streets were the homes of

A street in Florence.

nobles and merchants in the time of Columbus; now they have been made over into tenements for poor families. **Turin** is an important railroad center and manufacturing town in Lombardy; it is the first large Italian city on the mount Cenis railroad from France. **Palermo**, in Sicily, stands in the midst of orange and lemon groves, and is a shipping-point for fruit.



A view of Genoa.

**The Islands.** — The area of **Sicily** is 10,000 square miles and the population 3,500,000. It is separated from Italy by the strait of

Messina. Sicily is mountainous with a narrow coastal plain. **Mount Etna** rises more than 10,000 feet above the sea. The interior of Sicily has been denuded of trees. The coastal plains are very fertile, producing wheat, corn, fruits, grapes, and olives. Sulphur is the chief mineral product. The **Lipari** islands, north of Sicily, are famous for the **Stromboli** volcano, it is called the Lighthouse of the Mediterranean. The **Maltese** group, southwest of Sicily, now belongs to England. The island of Malta has an area of 100 square miles, mostly

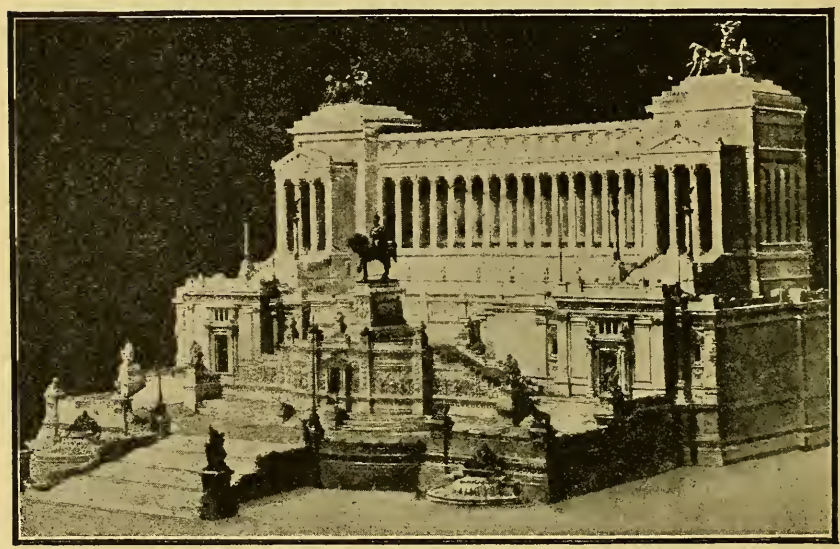
A view of Messina after the earthquake.

bare rock. The fine harbor of Valetta is guarded by impregnable forts. **Sardinia** is a mountainous island to the westward from Italy. It has an area of 9,000 square miles and a population of 870,000. **Forests** cover two fifths of its surface. The soil is fertile, and the vine, olive, and orange grow to perfection.

**Emigration and Colonies.** — During the last five years about three millions of Italians have emigrated to foreign countries. One third of these have come to the United States. The number of emigrants is steadily increasing. Italy has two colonies in Africa, **Eritrea**

and Italian **Somali-land**; and also the concession of **Tientsin** (*tyen'-tsin'*).

**San Marino.** — Included within the territory of Italy is the little state of San Marino, the oldest and smallest republic in the world. It contains 24 square miles and 11,000 inhabitants.



Monument at Rome in memory of King Victor Emanuel II, the founder of the United Kingdom of Italy. This is one of the most magnificent memorials in the world. It is 500 feet long, 450 feet wide, and 250 feet high, and cost $20,000,000. The bronze equestrian statue of the king is 40 feet high.

QUESTIONS AND TOPICS. — (1) Location of Italy in Europe; in latitude. Which of our states have the same latitude? (2) Describe the direction and extent of the Apennines. What is the highest point? What volcanoes has Italy? Where are the lowlands? What is said of the Po valley? (3) How do you account for the mild climate of Italy? Why do the rains come chiefly in winter? How is Italy governed? Religion? Education? (4) Why is Italy a better farming country than Spain? What industries are carried on? What are the products of southern Italy? (5) Describe the silk industry and trade. Where do the vine and olive grow? What is said of the olive-oil industry? How does Italy rank in wine? (6) Fishing industries. What use is made of coral? What are the chief minerals of the country? Where are borax and sulphur found? Name the other minerals and tell where found. (7) What are the leading manufactures? What manufactured goods are imported? Make a list of the exports and imports of Italy and the countries to which each is sent. (8) Means of transportation. Name the chief land and water routes. What is said of Italy's shipping? (9) Write a paragraph about Naples. Write one about Rome. Make a list of all the cities named in this chapter, and write an important statement about each.

# CHAPTER VIII

## SPAIN AND PORTUGAL

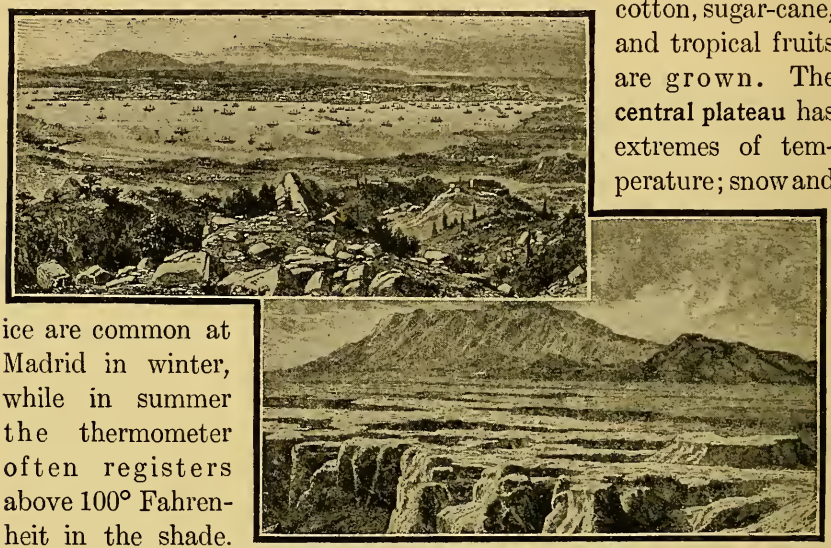
Answer the questions on SPAIN AND PORTUGAL, *page* 56.

**Location, Surface, Climate.** — The extreme southwestern part of Europe, called the **Iberian peninsula**, is occupied by Spain and Portugal. The area of **Spain** is 192,000 square miles with a population of 19,000,000. **Portugal** has an area of 35,000 square miles and a population of 6,000,000. In the rugged nature of its surface the Iberian peninsula resembles Switzerland and Norway. The **coast** is not broken by deep inlets, but there are numerous small indentations which make good harbors, the estuary of the Tagus being the best.

The mountains which run nearly parallel with the coast shut off the **moisture** so that the interior plateau region receives too little rain for farming. The Pyrenees and Cantabrian mountains form the northern boundary of the plateau. Some of the peaks of the Pyrenees are over 10,000 feet high. The mountain passes are so numerous that the Moors called the Pyrenees the " Range of Gates." The Sierra Morena mountains are the southern boundary of the plateau. To the south between the Sierra Morena and the Sierra Nevada mountains lies the fertile valley of the **Guadalquivir** (*gwä'-thăl-kē-vēr'*) river. The long slope of the plateau is drained toward the west by the Douro, Tagus, and Guadiana (*guä-thē-ä'-nä*) rivers. The shorter eastern slope is drained into the Mediterranean by the Ebro, the only important river in the north. Many of the peaks of the plateau ranges are from 7,000 feet to 10,000 feet high.

Spain and Portugal lie on the southern border of the belt of westerly winds. The northern and northwestern parts of these countries therefore receive a heavy **rainfall**, coming at all seasons. Like the rest of western Europe the climate of this section is moderate throughout the year. The rain diminishes gradually toward the southeast; at Madrid it is only ten inches annually, while farther south on the plateau sheltered by the lofty Sierra Nevada mountains the rainfall

is so meager that irrigation is necessary. The narrow coast plain on the south and east receives enough rain, but chiefly in winter (see *page* 23). This region has the warmest climate in Europe, and cotton, sugar-cane, and tropical fruits are grown. The **central plateau** has extremes of temperature; snow and ice are common at Madrid in winter, while in summer the thermometer often registers above 100° Fahrenheit in the shade. The climate of Portugal resembles that of the peninsula in general, but unlike Spain every part of this country receives sufficient rain for farming.



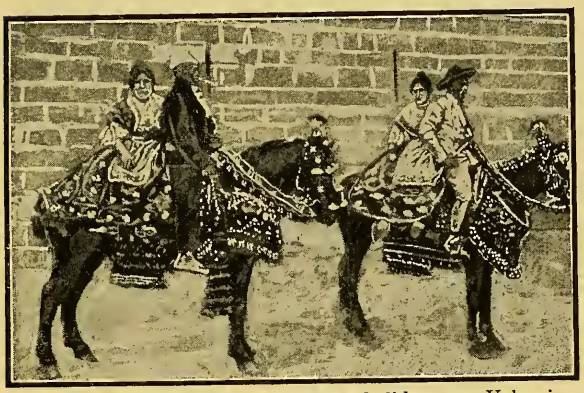
The mouth of the Tagus showing Lisbon and the highest point of the Sierra Nevada mountains in Spain.

**People and History.** — The **Celts**, who inhabited the Spanish peninsula, were conquered by the Romans. Afterwards **Teutonic tribes** invaded the land. The invaders adopted the Roman language and customs which they found prevailing, and did not greatly change the character of the people. Still later the **Mohammedan Moors** crossed the strait of Gibraltar and conquered the southern half of the peninsula, which they held until driven out by Ferdinand and Isabella. The Moors of that time were a highly civilized people, far in advance of the nations of Europe. During their long residence in Spain they had made the country productive and prosperous. In the time of Columbus, Spain and Portugal were the leading maritime nations of Europe; it was **Diaz** and **Da Gama** who explored the coast of Africa and found the first sea route to India; and **Columbus**, **De Soto**, **Cortez**, and **Pizarro** who were the discoverers and conquerors of the New World. In those days the best men of Spain went either to the wars or to the colonies, and the home country became

impoverished. Useful industries nearly ceased and the government depended almost entirely upon the colonies for resources. In the early part of the nineteenth century the Spanish colonies in America became independent. Spain lost the last of her important colonies in the late war with the United States. The Spanish people of to-day are simple and hospitable, proud and somewhat disinclined to work. In the rural districts they live mostly in villages, going out every morning to work on their farms.

**Industries of Spain.** — From one half to three fourths of the people of Spain obtain a living directly from the soil. Wheat, oats, and barley are grown on the central plateau; corn on the coast plain and in the river valleys. Southern Spain and the Mediterranean coast produce grapes, olives, oranges, cotton, sugar, and silk; the date palm and the pomegranate flourish in the dry regions, as well as flax, hemp, and esparto, a grass used in making paper.

The Moors had developed a thorough system of irrigation in southern Spain which the government is now trying to restore; it is also endeavoring through agricultural schools and experiment farms to improve the methods of cultivation.



A party of Spanish villagers out for a holiday near Valencia.

Of farm products, wine and fruit, olives and olive oil are the most valuable. The olive grows on the dry uplands without irrigation, and is of the highest value to the Spanish both as an article of food and as an article of trade. To obtain olive oil, the fruit is crushed and the oil pressed out by rude machinery on the plantations and the waste pulp is used to fatten swine. Malaga grapes are well-known articles of Spanish commerce.

Sheep and swine are the principal farm animals; the dry plateau is splendidly adapted to sheep and more are kept than in any other European country. The sheep are of the fine-wooled *merino* breed for which Spain is noted. Mules and donkeys are the common beasts

of burden. The roads in general are so bad that vehicles cannot be used, and farm products are transported on the backs of these sure-footed animals. The **Basques** in the north raise cattle for export to England. Bulls and horses are bred in **Andalusia**; the former for the bull fights. The **forests** of Spain are nearly depleted, the only product they supply worthy of mention is the bark of the cork tree, an export which is next in value to wine.

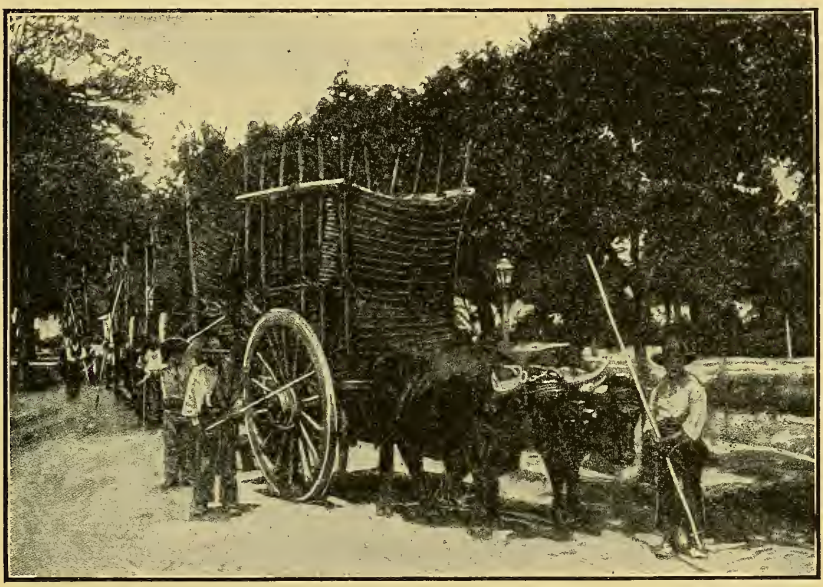
**Minerals.** — The most valuable natural resource of Spain is the mines, which have been worked for three thousand years and seem to grow richer the more they are worked. Cadiz, the oldest city of Spain, was founded by the Phenicians as a trading port for metals. The **mines** are for the most part in the bordering mountains; they number over 28,000 and cover an area of 280,000 acres. In copper, lead, and quicksilver Spain is the leading country of Europe. Zinc, silver, and arsenic also are found. Coal and iron are most abundant in the highlands of Asturia in the north; more iron ore is shipped from the port of Bilbao than from any other port of Europe.

Salt, sulphur, soda, cobalt, and phosphorus are other valuable mineral products. Owing to antiquated methods of mining and the lack of capital, the Spaniards profit little by their mineral wealth. Many of the mines are owned by foreigners, and the metals are exported mostly as raw materials; nearly the entire output of the iron mines goes to Great Britain, to be sold back to Spain in the form of iron and steel manufactures.

**Manufactures.** — Spain was once one of the busiest of manufacturing countries. Spanish cottons, woolens, linens, leather, and steel goods once supplied her colonial trade and half the markets of Europe. The industries of the country declined after the expulsion of the Moors. **Barcelona** is now the chief manufacturing city. Its leading products are textile goods, paper, and glass. **Murcia** and **Valencia** have extensive silk mills; fine glass and china ware, articles of gold and silver, and chocolate are made at Madrid and at several smaller cities. **Iron** and **steel** goods are manufactured mainly in the Basque provinces. Cannon and rifles are made at the government arsenals at La Trubia near the town of Oviedo. **Wines** are made at Jerez (*hā'-rāth*),

Alicante, and Malaga, and exported to France and other countries of Europe. There are numerous flour and oil mills, and factories for making tobacco and cigars give employment to 50,000 families. **Leather goods** are still made at Cordoba, and cutlery at Toledo.

**Transportation and Commerce.** — Since the industries of Spain are mostly along the coast, trade is mainly carried on by **coasting vessels.** Steamers ascend the Guadalquivir as far as Seville, but the



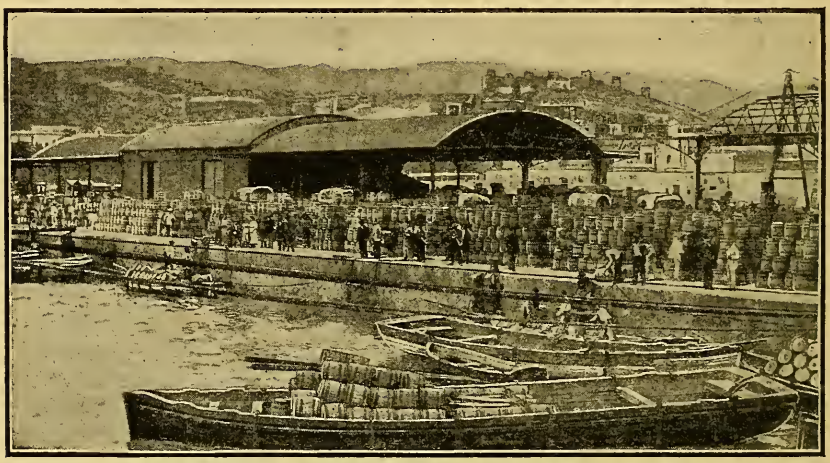
Transporting produce to market at Seville.

other rivers are of little use for navigation. There is one canal, 60 miles long, built to improve the navigation of the Ebro. This river, as well as the Tagus, the Minho, and Douro, is navigable for short distances. The coast towns and the larger interior cities are connected by **railroads.**

Besides the articles already named Spain **exports** cork, olive oil, raisins, nuts, Malaga grapes, and oranges. Esparto and a few coarse textiles are also among the exports. Articles of necessity are **imported,**

such as grain, flour, provisions, tobacco, cotton cloth, lumber, and machinery. These goods are obtained mainly from Russia and the United States. Our chief imports from Spain are nuts, fruits, and cork. Spanish goods are in large part carried by Spanish ships.

**Cities.** — The two cities of Spain which exceed half a million population are **Barcelona** and **Madrid**. The former is the main seaport and the leading business and manufacturing city. Madrid owes its importance to its being the political center of the nation. The loca-



Shipping Malaga grapes from the port of Almeria in Spain.

tion of the city is inconvenient and the climate is bad. The sights of Madrid center about its splendid square, the **Puerta del Sol**, or Gateway of the Sun, so called because it was formerly the eastern entrance to the city. The Royal Palace with its fine interior decorations, the Parliament Houses, and the Picture Gallery with hundreds of paintings by the most distinguished artists of Europe, are the most famous buildings.

**Valencia**, **Seville**, **Malaga**, **Murcia**, and **Cartagena**, the next cities in size, are practically seaports. Cartagena has the best harbor. Seville, the "Paris of Andalusia," is noted for the old Moorish palace of the **Alcazar**. **Granada** contains the royal palace of the Moorish kings, the **Alhambra**, one of the most beautiful and

lavishly decorated structures in the world. **Cordoba**, once a city of a million inhabitants, has dwindled to sixty thousand; its mosque is unrivaled among the Moorish sacred edifices. **Toledo** has a second Alcazar, and both Toledo and **Burgos** have splendid Gothic cathedrals. Madrid and Seville are famous for large amphitheaters for bull-fighting, though most of the larger cities have their bull rings.

**Islands and Colonies.** — The chief islands belonging to Spain are the **Balearic** (*bal-ē-âr'-ik*) group in the Mediterranean, and the **Canary** group near the coast of Africa. Politically these groups are attached to the mainland, as are also the Spanish possessions on the coast of Morocco. The Balearic islands have rich mineral resources and important manufacturing industries. The Canary group consists of a number of small islands which are very productive of tropical **fruits** and **vegetables.** The volcanic peak of Teneriffe rises over 12,000 feet above the sea. The mild and equable climate of both these island groups has made them famous as a **health resort.**

A fish pedler in the streets of Malaga.

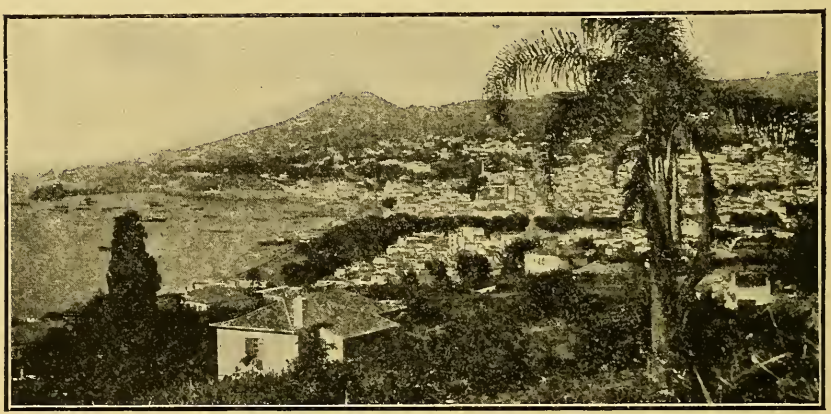
In a lofty valley on the southern slope of the Pyrenees is the little republic of **Andorra**, which has maintained its independence for over a thousand years. Its area is only 150 square miles, and its population about 10,000. Its resources are chiefly in agriculture and grazing. The rock of **Gibraltar** on the southern coast of Spain is a crown colony of Great Britain. Its strong fortifications command the entrance to the Mediterranean sea. It is also important as a naval station and coaling port.

**Industries and Cities of Portugal.** — Portugal closely resembles Spain in surface features, climate, resources, and industries. It has the most extensive **cork** forests in the world, and cork bark is, next to wine, the most valuable export; copper ore, cotton goods, timber,

and fruits are the **exports** next in value. The trade of Portugal is chiefly with Great Britain, Germany, France; and with Brazil, at one time her largest colony. The leading **imports** are wheat, fish, sugar, iron work, cotton, and machinery.

Both Spain and Portugal have extensive **fisheries** both in the Mediterranean and in the Atlantic, but the catch is not large enough to supply the home demand, so that fish is one of the foods imported.

**Lisbon** and **Oporto** are the only large Portuguese cities. Lisbon is situated on the Tagus twelve miles from the coast, where the river widens to form a splendid harbor. It is picturesquely situated with rugged mountains at its back. It has one of the largest libraries in



Funchal, the capital of the Madeira islands.

Europe. It is the seat of the government and is the chief military and naval station. Oporto, at the mouth of the Douro, is the leading wine-shipping port.

**Colonies.** — Portugal has important colonies on the coasts of India and China. The eastern part of the island of **Timor** in the East Indies also belongs to her. Coffee and wax are exported, but the island is not developed. The most important of Portugal's colonies, however, are **Guinea**, **Angola**, and Portuguese **East Africa**. She owns also the Cape Verde and Madeira (*mà-dê'-rà*) groups of islands near

the African coast. The African colonies are valuable to Portugal for minerals, forest products, and fruits.

**Government and Religion.** — The government of Spain is a limited monarchy. The king is the executive, and takes part in the making of the laws. The legislature is called the **Cortes**, and is composed of a **Senate** and **Congress** equal in authority. The Senate, numbering 360, consists of three classes. First, those nominated by the crown; second, those elected by the church, the universities, and by various corporations; third, senators in their own right, among which are sons of the king, certain of the nobility, and various officers of state. The Congress is composed of deputies elected by the people. The government of Portugal formerly resembled that of Spain. In October, 1910, the revolutionary party seized the government property in Lisbon, expelled the king, and established a republic under a president. The new government has abolished the House of Peers, the Council of State, and titles of nobility. The popular branch of the legislature only has been retained. The Roman Catholic Church is the state religion in both countries.

QUESTIONS AND TOPICS. — (1) Location and surface of the Iberian peninsula. Locate the mountains; the plateau. Why does the rain decrease from north to south? Explain the climate of the coast plain. (2) Name the races that have successively invaded the Spanish peninsula. Are any of them still found there? Who were the Moors? What is said of their civilization? (3) What is said of Spain in the days of Columbus? Name some of the distinguished men of Portugal and Spain. (4) What difficulties retard successful farming in Spain? What are the products of the interior? Of the coast plain? What plants grow well on the uplands? What farm animals are kept? Why are sheep more abundant than cattle? What use is there for donkeys and mules? (5) What is said of the mines of Spain? Which minerals are the most abundant? Name other minerals, and tell some use of each. How could Spain make her mines more profitable? (6) What caused the decline of Spanish manufactures? Make a list of the chief manufactures to-day and tell the locality of each. Exports and imports of Spain. (7) What are the two leading cities of Spain? Of Portugal? Trade of Portugal. Make a list of all the cities named in this chapter, and state an important fact about each. What is said of the colonies of each of these countries?

# CHAPTER IX

## SWITZERLAND

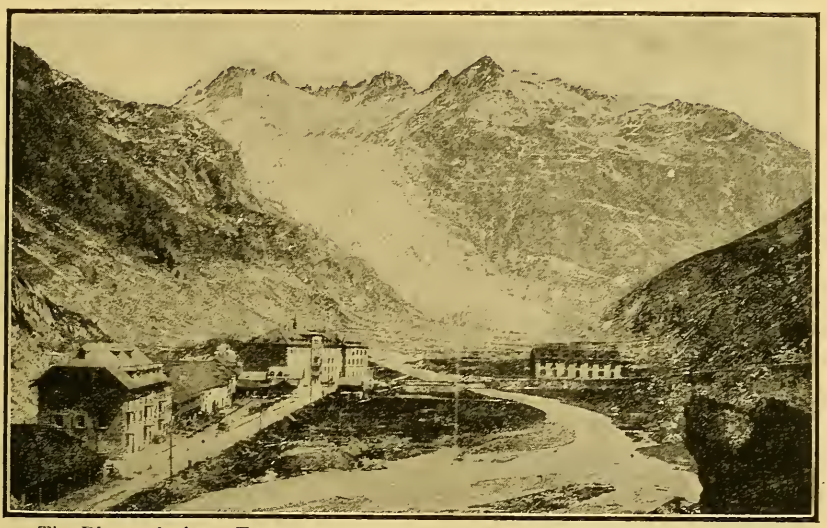
Answer the questions on SWITZERLAND, *page* 108.

**Location and Surface.** — The area of Switzerland is a little less than 16,000 square miles and its **population** about 4,000,000. This is the most mountainous country in Europe. It may be called the roof of the continent, from whose lofty ridges flow four **rivers**, the Rhine, the Rhone, the Danube, and the Po. On the northwestern border are the Jura mountains with an average elevation of 2,500 feet; the southern and southeastern parts, comprising about three fifths of the entire surface, are occupied by the **high Alps**, ranging in height from 5,000 to 15,000 feet. Between these two mountain regions lies the **Swiss plateau** extending from lake Geneva to lake Constance. This plateau is irregular and hilly, heaped here and there with the glacial deposits of the Ice Age (see *page* 19), and deeply furrowed by the numerous

The Matterhorn.

swift mountain streams which descend from the Alps and flow northwest into the Aar (*är*) river.

The mountain ranges and plateaus have a general trend from northeast to southwest: nevertheless the streams, with the exception of the upper waters of the Rhone and the Rhine, instead of following the ridges, have found their way across them through the numerous mountain passes. These **mountain passes** are followed by the highways and railroads of the country. The most famous are the Great St. Bernard, the Simplon, the St. Gothard, and the Splügen. The same

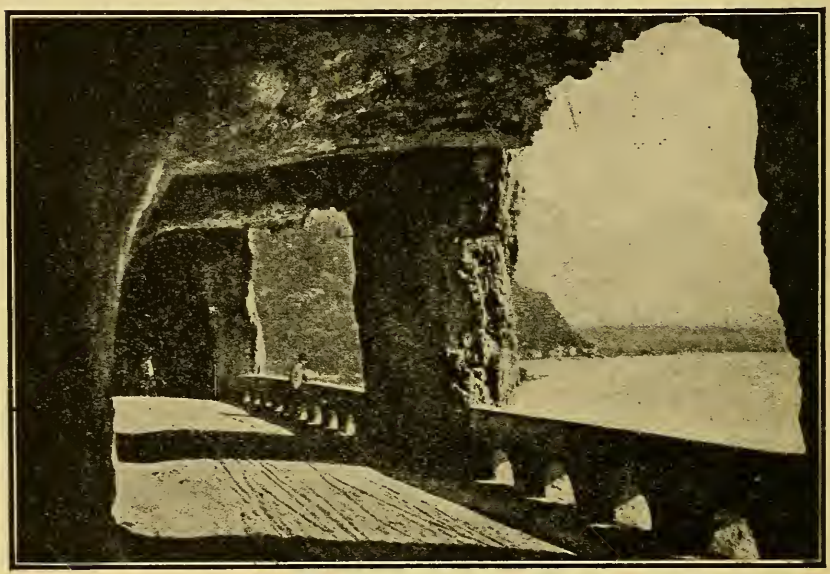


The Rhone glacier. Every glacier is the source of a stream which flows underneath the ice for several miles and finally emerges as the source of a river.

force that shaped the courses of the streams has arrested their flow in hundreds of places, forming lakes of great beauty, and some of considerable size. The mountain passes divide the Alps into numerous groups each of which bears the name of the territory in which it stands. The Pennine Alps contain the greatest number of lofty peaks. Near the village of Zermatt are mount Rosa (15,217 feet), Weisshorn (14,803 feet), the Matterhorn (14,705 feet), and twenty others, exceeding 12,000 feet in height. West of Zermatt, just over the French boundary, is mount Blanc, the highest peak of all (see *page* 56).

**Climate.** — A great variety of climate and products is found in Switzerland, depending upon the elevation and the direction of the mountain slopes. Wheat, the vine, and the mulberry tree flourish

in the plateau regions and in the southern valleys where the height is less than 2,000 feet. The characteristic trees at this elevation are the walnut, the chestnut, and the oak. Up to 4,000 feet the beech and the maple are found. In this region grasses and some of the hardier grains and fruits are cultivated. Above 4,000 feet the pine, the larch, and the fir are the principal trees. At 5,000 feet glaciers appear in the valleys and only dwarfed trees, shrubs, and grasses



The Axenstrasse, a famous highway which runs along the shore of lake Lucerne where it is chiseled out of the solid rock. This road affords a fine view of the lake and the surrounding mountains and is traversed every year by thousands of tourists.

grow. At 9,000 feet comes the region of perpetual snow and ice which includes one twentieth of the country. About one third the area of Switzerland is covered with ice or rock and is valueless for cultivation, the forests cover about one third, while the remaining third consists of pasture and cultivated land.

On southern slopes, owing to the greater directness of the sun's rays, the temperature rises high during the day but falls correspondingly low at night. The western and southern slopes receive the heaviest rainfall because the prevailing

winds blow from those directions; but the whole country has rain in abundance. In the high altitudes snow takes the place of rain, and the vast accumulations sliding off the mountain tops and ridges into the valleys form the **glaciers**, of which there are about 600 among the Alps. In Berne, the most populous canton is found in the Aletsch glacier, the longest in the Alps (16 miles). In the same regions are the famous mountains, the **Jungfrau** (*yŭng'-fräu*) (the maiden) and the **Mönch** (the monk). Near by are the beautiful valleys of the Grindelwald and the Lauterbrunnen; further north are lakes Thun (*tūn*) and Brienz, with **Interlaken** between them, the favorite resort of tourists. With the coming of the warm season the glaciers retreat up the valleys and the melting ice deposits the soil and drift.

A native of Grisons, the largest of the Swiss cantons, occupying the Engadine, or upper valley of the Inn.

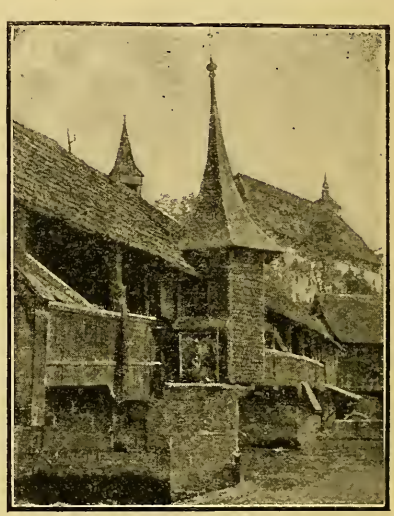
**People and History.** — The early inhabitants of Switzerland were a Celtic tribe called **Helvetians**. **Helvetia**, as ancient Switzerland was called, fell under the rule of the Franks, and afterwards became a part of the German Empire. In 1291 some of the cantons united and founded the **Swiss republic**. From time to time other cantons joined; there are now 22 in all. These cantons were free and independent districts and have retained their old powers of self-government. The Swiss have no national **language**. Two thirds of them speak German; those near the borders of France and Italy speak the languages of those countries; a surprisingly great number speak all three languages, as well as English.

**Government, Religion, Education.** — Each canton elects members to a **State Council** and the people at large elect members to a **National Council**. These two bodies form a national legislature called the **Federal Assembly**. The Federal Assembly chooses a **President** and a Federal **Council** of seven members which is the executive body of the Republic. The President holds office for one year only, but the term of membership for the Federal Council varies.

Both **religion** and **education** are under the control of the separate cantons. Considerably more than half of the people are Protestants; the rest are Catholics,

with one per cent. of Jews. No one can be taxed to support any creed to which he does not belong, and there is entire freedom of worship for all. Elementary, high, and technical schools are maintained, and there are universities in six cities.

**Industries.** — Though Switzerland has poor conditions for farming, **agriculture** combined with **stock-raising** and **dairying** provides a living for about half the population. There are nearly 300,000 small farms owned by the peasant proprietors, but the returns are insufficient for the comparatively large population, and half the food supply is brought from other countries. Dairy products and fruits are more important than field crops. Condensed **milk** and **cheese** are large exports. Swiss milch cows are of the finest breeds and are much in demand in the neighboring countries, while beef cattle are imported from Italy and Austria.



Quaint architecture in the old quarter of Lucerne

The fine flavor of the Swiss milk and butter is due to the rich grasses and sweet-smelling herbs which grow in the upper valleys. The pastures belong to the entire village and every farmer has the right to graze his cows in them. During the long winter the cattle must be stabled and fed. In the early spring when the grass springs up in the mountains, a day is set when all the cows of the village are brought together. The village herdsman and his assistants drive them to the upper pastures where they are kept and tended throughout the summer. The milk is either made into butter and cheese there or is sent down the mountain each day to the village.

Rye, oats, and potatoes are the chief products of the farms. Apples, grapes, pears, and cherries flourish. The **wine product** is very large but is not exported. The **forests** of Switzerland are cared for by a government commission. The forests supply timber for fuel and building purposes and for the important industries of wood-carving and the manufacture of musical instruments. Salt, cement,

and building stone are the only mineral products of any importance.

The manufacturing industries of Switzerland employ about one third of the people. The **textile industry** is the most important. Silk and cotton are manufactured extensively and the Swiss are expert in making knit goods and underwear of a mixture of these fibers. Plain and embroidered silks and ribbons are made at Zurich and Basel, and fine laces, trimmings, edgings, and embroideries at St. Gall and Berne. St. Gall is especially noted for hand embroideries on linen. Much of the weaving is done by hand at home. Straw is braided by hand and exported for use in making hats. The **metal industries** include watches, clocks, machinery, and jewelry. Geneva is the center of the watch trade.

Over 300 technical schools are maintained by the canton governments. Formerly all metal work, including watches, was done by hand; but the competition of other countries has compelled the Swiss to introduce machinery.

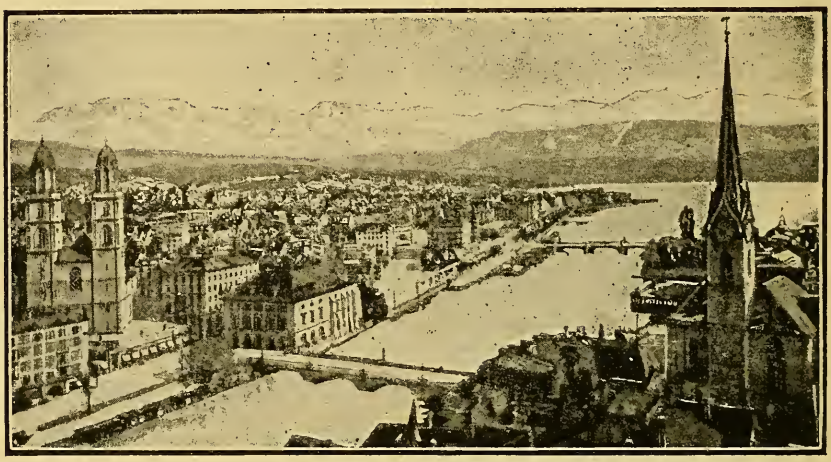
**Transportation and Commerce.** — Switzerland has about 3,000 miles of **railways** and a complete system of **telegraph** and **telephone** lines, most of which are operated by the Federal Government. Five important railways cross the Jura mountains into France, Germany, Belgium, and Holland, and shorter lines lead up the valleys to points of interest to tourists. Public **highways**, built with much engineering skill, cross the country in every direction.

Two railways cross the high Alps into Italy. One of these passes under **Saint Gothard** mountain by a tunnel nine miles long; the other, under the **Simplon**, by a tunnel thirteen miles long. A third tunnel, the Loetschberg, nine miles long, was completed in 1911. It connects Berne with the Simplon railroad and with Milan, Italy. These roads make it possible to travel in two days from the North sea to the Mediterranean. The water-power of the country supplies electricity to railroads and factories.

Besides dairy products and cattle, Swiss **exports** consist of the manufactured goods above described. Material for the textile industries is practically all **imported**. Raw silk comes from Italy, China, and Egypt. Cotton thread and yarn come from England, and raw cotton,

foodstuffs, and kerosene from the **United States.** Our imports from Switzerland are mainly cotton goods, lace trimmings and lace curtains, clocks and watches, dyes, silks, knit goods, cheese, and chocolate.

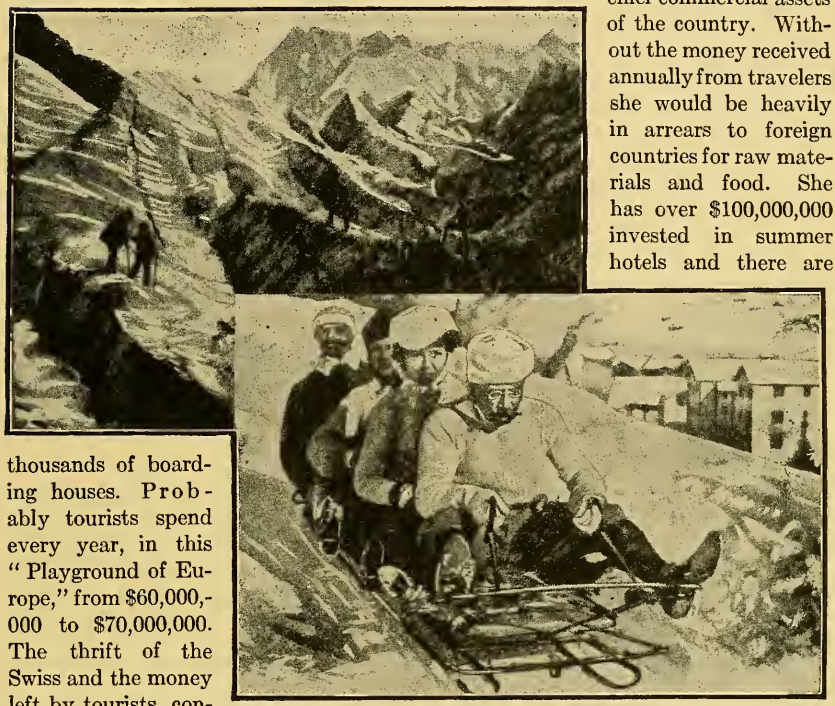
**Cities.** — The large cities are all in the **plateau region**, this being the most productive part of the country, the most easily accessible, and the seat of the chief manufactures. Zurich, besides its manu-



Zurich on lake Zurich.

facturing industries, has a university, a national scientific school (see *page* 135), and a national museum. **Basel**, the second city and chief railroad center, stands on the frontier where the Rhine crosses into Germany. **Geneva**, an old city, on the French border at the west end of lake Geneva, is noted as an educational center. Its manufacturing industries are supplied with power generated by the falls of the Rhone. **Berne**, the capital, contains the government buildings and the offices of several international bodies which have their meeting place in Switzerland on account of its central location. Other large towns are **Lausanne** (*lō-san′*), **St. Gall**, **Chaux-de-Fonds** (*shō′-de-fôn′*), **Lucerne**, and **Bienne**.

**Swiss Scenery.** — The delightful climate and scenery of Switzerland are the chief commercial assets of the country. Without the money received annually from travelers she would be heavily in arrears to foreign countries for raw materials and food. She has over $100,000,000 invested in summer hotels and there are thousands of boarding houses. Probably tourists spend every year, in this "Playground of Europe," from $60,000,000 to $70,000,000. The thrift of the Swiss and the money left by tourists, contribute to make the country prosperous.



Favorite amusements in Switzerland. 1 Mountain climbing. 2. Tobogganing.

QUESTIONS AND TOPICS. — (1) Location and surface of Switzerland; natural divisions. Describe the streams and lakes. Name some of the high mountain peaks. (2) Name five of the climatic divisions that depend on elevation. How do the slopes affect temperature and rainfall? Tell how the glaciers are formed. Where is the longest glacier? What interesting places near it? When are the glaciers longest? Shortest? What is the result of the melting of the glaciers? At what height does perpetual snow begin in the Alps? (3) What languages are spoken in Switzerland? What are the divisions of the Federal Government? What are the principal religions of the country? (4) What are the chief farming industries in Switzerland? Why is stock-raising more important than agriculture? Describe the pastures of the Swiss valleys. What is said of the forests? What mineral products are found? (5) What are the leading textiles? The leading metal products? What city is noted for watches? Transportation and communication. (6) Exports and imports. Trade with the United States. (7) Make a list of the chief cities of Switzerland, and write a statement about each.

# CHAPTER X

## RUSSIA

Answer questions on RUSSIA, page 21.

**Effects of the World War.** — In 1914 before the outbreak of the Great War, the Russian Empire was the strongest absolute government on the globe. It embraced one sixth of the land surface, and was second only to the British Empire in area. All its divisions — Russia-in-Europe, Siberia, Caucasia, and Turkestan — were rich in agricultural resources, producing enough for the needs of the home land, besides exporting more food products and raw materials than any other country except the United States. The area of European Russia was about 2,000,000 square miles and the population nearly 160,000,000. The great bulk of the people were peasant farmers living upon land belonging in common to their villages or leased from large estates belonging to the nobility, which numbered about 100,000 landed proprietors. The Czar, the absolute ruler of the Empire, residing at Petrograd, governed the country through the army and through his appointed officers living in the provinces. Home affairs were administered by the headmen of the villages and the local assemblies of the provinces.

**Revolution.** — The government of Russia has always been oppressive. It has always been the object of the Czars to make Russians out of the multitude of alien peoples living within the Empire by forbidding the use of their native languages and the practice of their religions. In this way the Finns, the Poles, and especially the Jews have been subject to continual persecution. It is no wonder, then, that Russia has been the breeding place for Anarchists, Nihilists, Bolshe-

vists, and revolutionists of every type, all seeking to destroy the harsh and oppressive government of the Czars. The ranks of the revolutionists have been recruited mainly from among the educated classes and the poor laborers in the cities. The peasant farmers, for the most part illiterate and densely ignorant, have taken little interest in matters of government, and as a general thing supported the government of the Czars.

**Historical Sketch.** — A few centuries ago before Russia became one of the states of Europe, there were three sections known by the name "Russia." These were Red Russia, in the west between the Dnieper and the Vistula rivers, White Russia, lying north and east of Red Russia, and Black Russia, consisting of the central provinces of which Moscow was the capital. During the sixteenth and seventeenth centuries, the colonization period of America, the name generally applied to Russia was "Muscovy," a name derived from Moscow, indicating the prominence of that state. The "Czar of Muscovy" was the symbol of autocracy and arrogance. All Russians are members of the Slavonic race, which is supposed to have come from Asia in the fourth and fifth centuries.

**Scandinavian Invaders.** — In the eighth and ninth centuries the northern countries of Europe (Norway, Sweden, and Denmark) were united under the government of Denmark, the greatest power of that time. The people were known as "Northmen," and their soldiers and sailors led by able chiefs explored and conquered in every direction. They sailed west to Iceland and America. They conquered Britain and northern France. In 862 Chief Ruric led an army into Russia and established a kingdom in the west with his capital at Novgorod, about 100 miles southeast of Petrograd. The seat of government of the Scandinavian state was afterward removed successively to Kief, Vladimir, and Moscow, the last-named city remaining the capital until St. Petersburg — now Petrograd — was made the capital in 1703 by Peter the Great, who drove the

Swedes out of the country. Peter and his descendants, or the "House of Romanoff," continued in power until the abdication of the late Czar Nicolas, March 15, 1917.

**Bolsheviki and Soviet Rule.** — A new republic was proclaimed immediately after the removal of the Czar, with free speech, universal suffrage (including women), pardon for all political prisoners and exiles, and the maintenance of the existing political relations with other countries. Attempts were made to establish a permanent constitutional government at Petrograd, but these attempts were opposed by the radical revolutionists, or Bolsheviki, who wished the "Soviet," or Council of Workmen's and Soldiers' Delegates, to have the supreme control. The result was a series of revolutions in different parts of the country and several provinces declared independence. The Bolsheviki, under their leaders Lenine and Trotzky, finally obtained control of affairs and set up their government at Petrograd. The new government abolished all property rights and divided the land among the people; it wiped out the institutions of marriage and religion, and all other institutions that civilization has laboriously built up, and began the systematic confiscation of all kinds of private property. Opponents of the new government were massacred. Civil wars sprang up in different parts of the country and are still raging. Millions of people have been killed, and of those who are left thousands are dying of starvation every month. The railroads and industries of the country are for the most part suspended; the system of the "government by the people" — which in Russia means the worst people — has failed and the entire land is in a state of ruin and desolation. Of the 2,000,000 inhabitants of Petrograd, the capital and largest city, only 600,000 are left, and hundreds of other towns have suffered a similar decimation from war, famine, and disease.

**Losses of Territory in European Russia.** — A comparison of the old and new maps of Russia indicates that nearly one

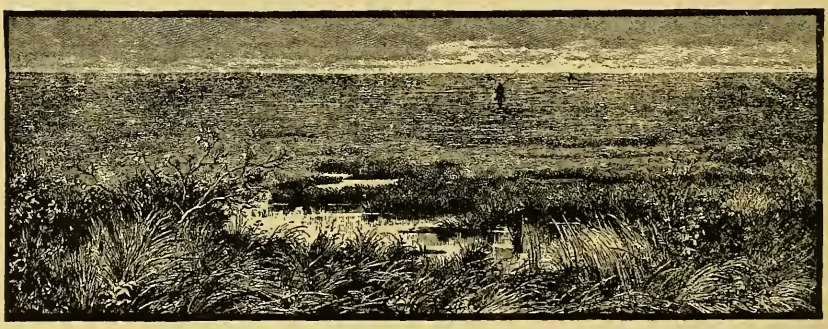
third of the surface has been given up to the new republics, Finland, Poland, Esthonia, Latvia, Lithuania, and Ukrainia. All these lie along the western and southern borders. It is probable that other regions also will be lost, especially if the Bolsheviki remain in control of Petrograd. The remainder of this chapter was written before the war, and it should be read with the thought that many of the productions mentioned are not now produced, and that many of the industries described are now suspended.

**General Description.** — Russia with its dependencies, Siberia, Caucasia, and Turkestan, lies in the great northern plain, extending from the Baltic sea to the Pacific ocean and from the fortieth parallel to within ten degrees of the north pole. The border of European Russia is broken by four seas: the Caspian, which is landlocked; the Black and the Baltic, whose outlets are controlled by other nations; and the White, which is icebound eight months of the year. The Russian plain is crossed by a low **table-land** extending in a northeasterly direction from the Carpathian mountains to the Valdai Hills and thence to the Ural mountains. The large **rivers** of Russia, the Volga, Don, Dnieper (*nē′-per*), Duna, and Dwina rise in the table-land and flow down its gentle slopes to the four seas. Near the Caspian the plain is below the sea level, yielding luxuriant grass in spring, but in other seasons blasted by extremes of heat and cold. In the north, the plain slopes toward the Arctic ocean and ends in the tundras, the home of the reindeer, and the breeding places of innumerable migratory birds.

Plowing in southern Russia.

**Climate.** — As Russia lies far from the warm oceans and has no high bordering mountains to arrest the rainfall or to break the force of the winds, it has all the features of a continental climate. The winters are cold and the summers hot. The shores of the Arctic ocean are ice-bound for more than half the year, while the mouths of the Volga and Dnieper rivers in the south are closed on account of the ice for more than three months during the winter. The winds which bring rain and warmth to the plain are the same westerly and southwesterly winds that bathe the shores of Great Britain and France. But they

Devil's Gate, a pass in the Caucasus. A military road has been built by Russia through this pass.

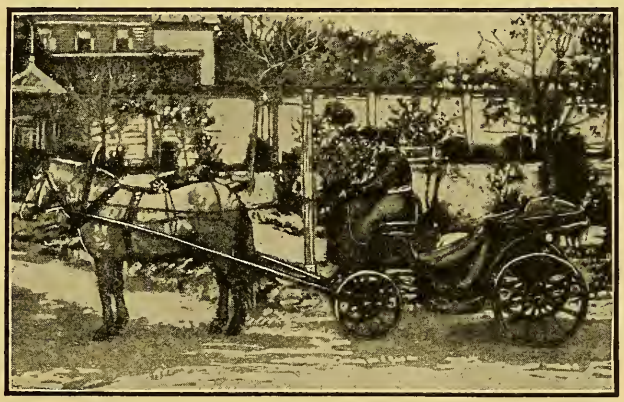


A view of the steppes of southeastern Russia.

become drier and cooler as they proceed eastward, so that the Russian plains receive only one fourth as much rain as the Atlantic coast, while the climate toward the east is subject to

greater extremes. Thus the western part of the country is fairly well watered, while the eastern and southeastern parts receive not over 20 inches annual rainfall, and frequently less; as a result droughts, with crop-failures and famines, are frequent. In the winter the winds from northern Siberia bringing the Arctic cold traverse Russia from the northeast.

Russia may be divided into six belts of vegetation. In the extreme north are the **tundras** (see *page* 22). South of the tundra region is a belt of **forests** of low birches, larches, and firs; farther south are forests of evergreen trees, with here and there cultivated clearings. Next to this and crossing the central part of the



A Russian drosky, or carriage.

country is a belt including forests of deciduous trees and the great **farming region** where grain, hemp, and flax are the chief products. Below this farming belt is the **Black Earth** belt which extends from the valley of the Dnieper to the base of the Ural mountains. This is the "wheat belt" of Russia, and has extensive orchards and meadows. In the arid region bordering the Caspian sea only coarse grasses are found; this is the chief **grazing section.** The inhabitants are wandering tribes of Tartars who keep cattle and sheep. In the region south of the **Caucasus mountains** the climate is semi-tropical; corn, cotton, the vine, and tropical fruits are produced. Southwest of the **river Dnieper** vegetables and root crops, especially the sugar-beet, are important products.

**The Russian People.** — Russia contains from fifteen to twenty **races**, speaking forty **languages** and dialects. Of the

100,000,000 people belonging to the white race, over 90,000,000 are Slavs, who constitute the backbone of the nation. There are many Poles and Germans and about 4,000,000 Jews. The Finns and Samoyeds in the North and the Tartars in the South belong to the yellow race.

A Russian tea party. The tea urn, or "samovar," is always kept ready for use among the Russians, who are great tea drinkers.

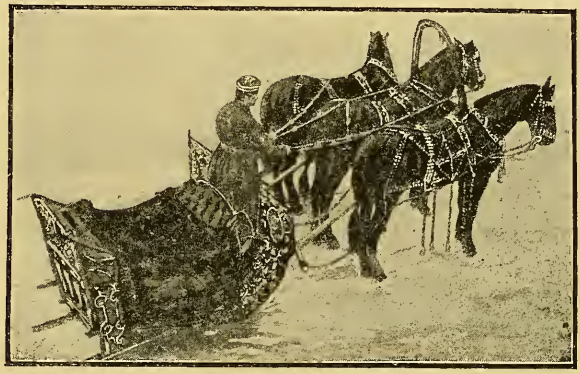
Although the town population has increased in recent years, the mujik (*mōōzhik'*), or peasant farmer, is still the real representative of the nation. Until 1861 the Russian peasants were serfs attached to the estates of the nobles, and were bought and sold with the land. They lived in villages, and when set free about two fifths of the land was apportioned among them. There are about half a million villages in the empire,

Russian peasants in the market place.

holding on an average from four to five square miles of land each. All this has been changed by the present government.

**Government, Education, and Religion.** — Each village is self-governing, all the men meeting together in the open air to discuss public affairs. They elect an **elder**, or headman, to direct the business of the village; and a **tax collector.** The peasant population is still very ignorant, less than one fourth being able to read and write.

The established religion of the Empire is the Greek Catholic faith. There are, however, about 12,000,000 Roman Catholics, 14,000,000 Mohammedans, and some Jews, Buddhists, and various denominations of Protestant Christians. The Jews are the only sect to whom religious liberty is denied.

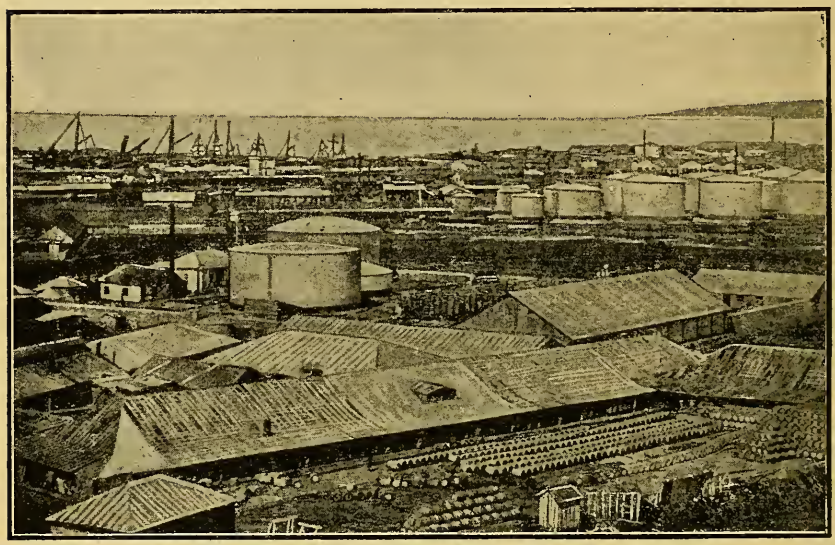


A Russian pleasure sleigh.

**Agriculture.** — Farming is the main occupation of the Russian people. Russia is, next to the United States, the greatest grain-raising country in the world. The annual yield of grains of all kinds amounts to two thousand five hundred millions of bushels. Rye is the chief crop; wheat and corn grow in the Black Earth country and oats and barley in the northern and central sections.

Russia is also the chief **hemp-** and **flax-growing** country, supplying four fifths of the entire world's product. Next in value are hay, potatoes, beet sugar, eggs, and poultry. **Rice** is grown in Trans-Caucasia, and tobacco chiefly in the Volga basin. Seeds, oils, and oil-cake are important articles of export; flax, hemp, rape, and sunflower seeds are the source of some of the oils. Oil-cake is what remains of the seeds after the oil is pressed out; it is sold to the countries of western Europe for fattening cattle, and for use as a fertilizer. **Animals** and their products are exported from southern Russia and the steppe regions.

**Forests Products.** — The basin of the Dwina is the richest section of the great forest belt. In the value of its forest products Russia ranks next to the United States and Canada. The home demand for **lumber** is enormous as most buildings are made of wood. In the manufacturing districts wood is still used for fuel; it is more easily obtained than coal. Lum-



Petroleum tanks at Batum.

ber, resin, potash, and wood-pulp are exported by way of Archangel and the ports on the Baltic sea.

The forests of European Russia are disappearing rapidly, and the effect is already apparent in the diminishing volume of the streams and in the disappearance of the fur-bearing animals.

**Minerals.** — Russia is rich in minerals, and mining industries are increasing in value. **Coal** and **iron** are abundant in the Ural district and north of the sea of Azov; blast furnaces and iron and steel works are found in both of these sections. Coal and iron also occur in the district south of Moscow.

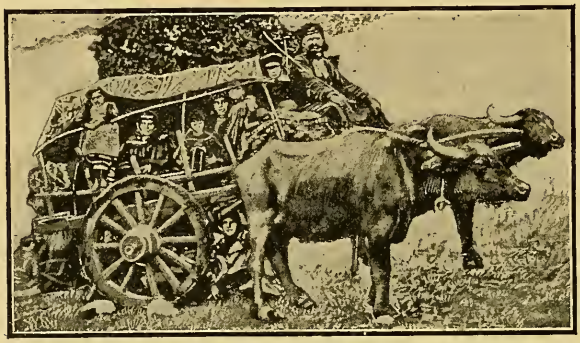
Gold, silver, copper, precious stones, and nine tenths of the world's supply of **platinum** are also found in the Ural mining district. Quicksilver ore and **petroleum** are found near the Caspian sea. Russia ranks next to the United States in petroleum. These two countries supply nearly the entire world. **Salt** is obtained north of the Caspian sea and near the sea of Azov.

**Fisheries.** — Fishing is carried on along the Arctic coast, in the rivers, especially the Ural and Volga, and in the Black and Caspian seas. An important industry is the making of the Russian **caviar** from the eggs of the sturgeon and other fish; this is much esteemed as a table delicacy and extensively imported. **Cured fish** is one of the largest imports into Russia on account of the many fast days observed by the Greek Church.

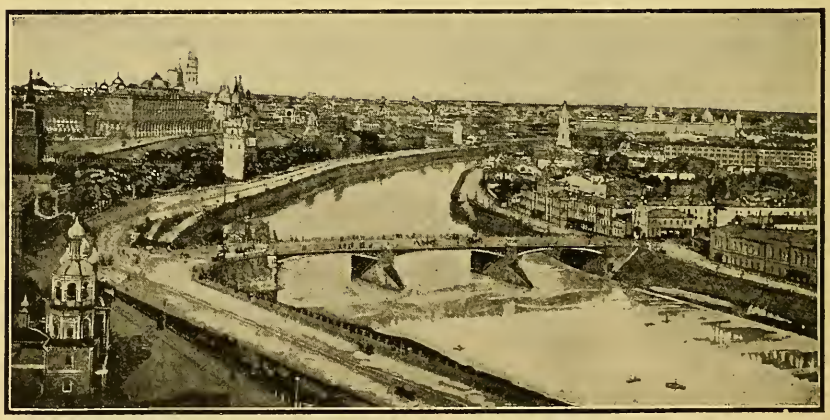
**Manufacturing.** — Since the Russian Revolution in 1917 the manufacturing industries have been at a standstill. An attempt was made by the new government to have all the factories controlled by the state, but it was found impossible to carry out this method. Before the war the textile industries were in the lead, Russia being the third country in the production of cotton cloth. Next in value were woolens, linens, and silks. It is probable that the farming industries will have to be restored before manufacturing is resumed on a large scale.

The **coal deposits** near Moscow have stimulated manufacturing in that city, while **water-power** has promoted the growth of Narva near Petrograd. **Tanning** is an old Russian industry. "Russia leather" is still a leading product. **Kazan** is a center of both leather and linen industries. **Tula** is noted for steel works and the making of small arms. It is the national arsenal. Alcohol made from potato starch is an article of export. Iron and steel industries are of later development, so that less skill in making them has been acquired. In the making of **farm machinery** Russia is far behind the United States. She is a large importer of our plows, harrows, harvesters, seed-drills, and mowers.

**Domestic and Foreign Commerce.** — Domestic trade is still carried on partly through annual **fairs.** The most important of these is that held at **Nijni-Novgorod** (*nizh'-nee-nov-go-rod'*). Merchants come from all Russia, from Persia, and central Asia. As many as 200,000 people are often present. The value of the goods sold often exceeds $100,000,000. Other large fairs are held at Kief and Kharkof in the southwest. Nearly 2,000 smaller ones are held in various parts of the country.



A party of gypsies with their team, in Caucasia.



Moscow, showing the Kremlin on the left.

Such fairs are still held in many parts of Europe. They are a relic of the Middle Ages. In our times, with the improved facilities for transportation and travel, the cities have become easier of access, and the fairs are dying out.

The **export trade** consists mainly in the shipment of food products and raw materials to the countries of western Europe. About one half these exports consist of flour and grain; next in value are lumber, flax and hemp, seeds, petroleum, eggs, and **poultry.** Manufactured goods make up less than one twelfth the exports. **Odessa** is the chief port for the shipment of grain; it also has machine shops, sugar refineries, flour mills, and breweries. The grain and timber of western Russia are sent down the river Vistula and shipped by way of **Danzig.** **Archangel** exports hemp, flax, timber, and grain. **Baku** on the Caspian sea is the chief center of petroleum production and export. **Batum,** the principal port on the Black sea, exports petroleum, wheat, carpets, and silks.

Most Russian **imports** enter the country by way of the Baltic sea; our cotton and machinery take that route. Tea, however, which, next to raw cotton, is the largest import, comes over the Siberian railroad from Dalny and Irkutsk. It is pressed into blocks and is known as **brick tea.** Much cotton also goes from Tashkend and other towns in Turkestan, over the railway to Orenburg on the eastern frontier. Cotton and woolen goods and machinery are imported from Germany; and coal, iron, copper, lead, and machinery from Great Britain. Our leading imports from Russia are raw wool, skins, and hides.

**Transportation.** — Internal communication is mainly by means of the numerous rivers, canals, and lakes, all of which furnish nearly 80,000 miles of navigable **waterways.** The great drawback to the water transportation is the ice during the long winter. The chief **railway center** is Moscow; from this city, trunk lines radiate connecting with the larger cities and, over the long trans-Siberian route, with the Pacific coast of Siberia. The Siberian railway terminates at Vladivostok, situated on the Pacific; this port has direct trade connections with New York by steamers through the Panama canal. Nine tenths of the ocean commerce is carried on by foreign ships. This trade is about equally divided between Odessa on the Black sea and Petrograd and Cronstadt on the Baltic.

**Cities.** — About one seventh of the people of European Russia now live in towns; there are sixteen cities that exceed 100,000 population, and two, Petrograd and **Moscow**, that exceed 1,000,000. Moscow, the former capital, is more oriental than European; its churches with their gilded, bulb-shaped domes, the houses painted in bright colors, and the dress of the people remind the traveler of Constantinople. **Petrograd**, the capital, is a modern European city with broad avenues, and buildings of more recent architecture. It is the fifth city of Europe.

The Winter Palace in Petrograd is the largest royal palace in the world. Other famous buildings are the Cathedral of St. Isaac, with its beautiful golden dome, and the Admiralty Building, the center of the naval affairs of the Empire. The **Nevski Prospekt** is the most magnificent street of the city. Among the monuments is a statue of Peter the Great, the base of which is the largest stone ever used in building. It is of red granite, 84 feet high, and 14 feet in diameter at the base.

As a result of the revolutions Petrograd is estimated to have lost one half its population. Moscow is the center of a populous region and chief lines of travel meet there; to these facts it owes its prominence. The most famous spot in Moscow is the walled enclosure called the **Kremlin**, which contains the Imperial Palace, the tower of Ivan the Great, the Treasury, and churches. The most sacred of the churches is the **Church of the Assumption** where the Russian emperors were crowned.

Several cities mentioned in this chapter are located in the new state of Ukrainia, which has not been recognized by the Russian Government.

A church in Moscow.

QUESTIONS AND TOPICS. — (1) Compare European Russia with the United States in area and position. Describe the slopes of European Russia; the highlands; name some of the rivers. (2) Climate; why extreme or continental? Direction of the winds; rainfall; temperature. Locate the six vegetation belts of Russia; name some of the products of each belt. (3) How do you account for the variety of races in Russia? Which races are the most numerous? Under the new government the peasants own the land; why is this better than the old system by which the people of each village held the land in common? (4) Why is it better for a country to have the farmer own the land that he tills? In what farm crops is Russia the leading nation? What farm products are exported? (5) What is said of the Russian forests? What minerals does Russia produce? Where is each of these found? Can you think of any reason why she should import coal and iron? What is said of the Russian trade in fish? (6) Name some manufacturing centers of Russia. What are the leading manufactures? (7) What is said of the factory system and of home manufacture? What manufactured goods are imported by Russia? How is this explained? Make a list of the exports. Imports, and the countries from which obtained. Describe the transportation facilities of Russia. (8) Make a list of the principal cities, and write a statement about each.

## CHAPTER XI

### AUSTRIA AND HUNGARY

**The Empire Dissolved.** — The old Austrian Empire, or Austro-Hungarian monarchy as it was called, was made up of a number of different races, which were once separate nations. The chief divisions were Hungary, German Austria, Bohemia, inhabited chiefly by Czechs and Slovaks, and Jugo-Slavia in the southeast. Besides these nationalities, Austria held territory in the north which had been taken from Poland, territory in the east inhabited by Rumanians, in the southeast by Italians, and in the west was land closely related to the Swiss. By the Peace Treaty all these lands have been restored to their rightful owners, and the province of Austria proper has been made a separate nation. It is inhabited almost entirely by Germans and has a republican form of government.

**Location, Surface, Climate.** — Austria lies in the Danube valley between Jugo-Slavia and Hungary; it has an area of 25,000 square miles and a population of about 7,000,000. Except on the north and west it is surrounded by its former subject nations and enemies, the Czechs, Slavs, Italians, and Magyars, or Hungarians. It is a landlocked country, having now no access to the sea, and has few natural resources except the soil. The land, however, is rich, and the climate temperate and moist. The surface of the northern part is level, but the southern part is crossed by ranges of the Alps, which, however, afford little mineral wealth. Much of the mountain region is forested with oak, walnut, and chestnut, with evergreen trees in the higher elevations.

**Productions and Industries.** — In the absence of minerals, farming, grazing, and fruit-growing are the natural industries connected with the soil. Rye, flax, hemp, tobacco, potatoes, and sugar-beets are the leading crops. Good breeds of stock are raised, and the poultry and egg product is the largest produced in Europe on an equal area, the dry limestone soils of the uplands being perfectly adapted to poultry. The hardwoods of the forests are utilized in the manufacture of staves for wine and beer casks which find a ready market in Germany and Italy. In pre-war times the manufactures of Austria were considerable, but her manufacturing districts have been mostly taken away. It is difficult to predict what will develop in the future in the manufacturing way.

**Vienna.** — The only large city in Austria is Vienna, the capital of the former Empire. Then it supported a population of over 2,000,000, but it is hard to see how in the new republic so many people can find the means of making a living. The old Imperial government supported a vast army and employed many thousand officials; but now both the military and the civilian officials must find other occupations. The glory of Vienna has departed. That city, which for centuries had been so lavishly adorned by kings and emperors that it ranked with Paris in the majesty and grandeur of its public buildings and in the beauty of its streets, pleasure resorts, and environs, must now become largely a place of historical interest. The Parliament Houses, the old Imperial Palace, and the Cathedral of St. Stephen still remain to be visited by tourists.

The city may continue to flourish as an educational and musical center. Once the home of the great masters of musical composition — Mozart, Beethoven, Wagner, Bach, Haydn, and Schubert — its hundreds of schools and societies of music will continue to be frequented by students from every civilized land. The Vienna University with its renowned School of Medicine will remain and will doubtless continue to flourish.

The famous "Ring Strasse," or circular boulevards, the "Prater," or public pleasure park, and the hundreds of noted places in the city and its suburbs will still attract visitors; but Vienna as the capital of a great Empire, as a center of politics, and as a meeting-place of world congresses is gone forever.

## HUNGARY

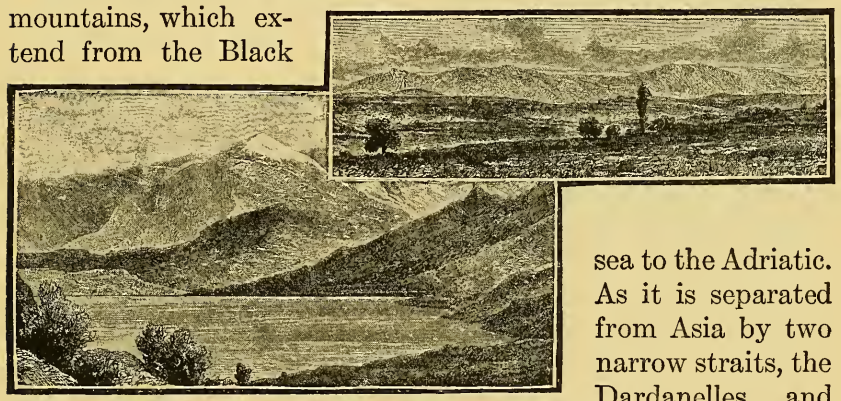
**Size and Surface.** — Hungary has been left by the war a small country of 25,000 square miles in area and about 5,500,000 people, who are almost entirely Magyars. The surface is level and lies in the plain of the Danube river. The country is surrounded by five of the new republics and is shut off from the sea. The industries must in the future be almost entirely agricultural, for there are little or no resources of any other kind.

**Products.** — Wheat, rye, corn, oats, and sugar-beets are grown, and much stock is raised. Horses, sheep, and swine are exported, but the largest exports are grain and flour. The capital and largest city is Budapest. The city has large flour mills and a variety of other industries.

## CHAPTER XII

### THE BALKAN PENINSULA

**History and People.** — This peninsula forms the south-eastern part of Europe and takes its name from the Balkan mountains, which extend from the Black sea to the Adriatic. As it is separated from Asia by two narrow straits, the Dardanelles and the Bosporus, it has from the earliest times been the principal road by which the people in Asia have entered Europe. The surface is broken into plains and valleys by mountain ridges and for this reason many separate nations have grown up.



View on the Balkan plateau and mount Olympus.

The Mohammedan Turks, who were the latest invaders of Europe (1453), conquered Greece as well as the Slavonic nations of the Balkan peninsula, and ruled them for nearly 400 years. Montenegro broke away from Turkish rule in 1697; in 1829, Greece proclaimed its independence; Rumania and Serbia received their independence by the agreement of the nations of Europe in 1878; Bulgaria declared its independence as a result of its war with Turkey in 1912, and the independence of Albania was declared at the same time.

## RUMANIA

**Physical Features.** — Before the war Rumania had an area of 53,000 square miles and a population of 7,500,000; but she will enlarge her boundaries in every direction at the expense of her neighbors. From Hungary she will take Transylvania and the Banat; from Russia she takes the province of Bessarabia, and from Austria, the province of Bukovina, thus bringing her area up to about 125,000 square miles, while her population will be doubled. The majority of the people in all these added states are of Rumanian stock. Hereafter Rumania will rank among European powers of the second class.

**Products.** — The Carpathian mountains cut through the center of the country, and on either side are broad fertile plains, a part of the famous "Black Earth" region, which extends through Hungary, Rumania, and the Ukraine. The mountain regions abound in minerals, while the plains are capable of producing all kinds of farm products. Wheat, flax, sugar-beets, and corn are the leading crops, and form the chief exports. There are extensive forests of oak, pine, and other woods. Coal and petroleum are the chief minerals. All industries are in a backward condition owing to defective transportation and a lack of knowledge and scientific skill in manufacturing. Much of the country has been ravaged by war and a considerable period will have to pass before the capacities of the people can be developed.

## BULGARIA

**Size, Surface, and Climate.** — Bulgaria lies south of the Danube river, and is divided by the Balkan mountains into two sections, which are quite different in soil and climate. The northern section has a climate of extremes, like Rumania, and is devoted to grain-growing and grazing. Wheat and wool

are the leading products. The southern section has a mild and moist climate, and raises rice, grapes, tobacco, silk, and cotton.

A characteristic product is the perfume, attar of roses — an oil distilled from the petals of the damask rose. The "Vale of Roses" is near Kazanlik, at the southern end of the Shipka Pass in the Balkans.

A Bulgarian shepherd. His rough clothing is made from sheep skins with the wool on the outside.

**Coal** is found in the Balkan mountains, and **iron** is abundant in many places; salt is mined at Burgas, and building stone is extensively quarried. The chief manufactures are textiles, cord, and cigarettes.

**Cities and Trade.** — The capital, **Sofia**, is on the main line of railway between Constantinople and central Europe, and has a large trade. **Rustchuk**, the Danube port, is connected by rail with Varna on the Black sea. **Burgas** and **Philippopolis** are the chief towns in south Bulgaria. On account of the excellent facilities for transportation afforded by the Danube river and the canals of central Europe, Bulgaria finds a market for her goods among her near neighbors.

## ALBANIA

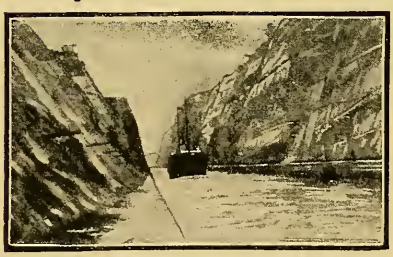
**General Description.** — Albania is a rough, mountainous region, about as large as the state of Massachusetts, lying along the Adriatic sea opposite the "heel" of Italy. Like the other Balkan provinces, it had been nominally under the rule of the Turks for 400 years when made independent at

the close of the war between Bulgaria and Turkey in 1912. The country was made into a principality, and William of Wied, a German Prince, was placed at the head of it. Attempts of the new ruler to restore order and establish a settled government were followed by a revolution by the rough, warlike Albanians, who drove William out of the country. This happened just before the outbreak of the Great War in 1914.

**The People.** — The Albanians are the oldest race in the Balkan peninsula, and are hunters and herdsmen rather than farmers. Like the old Scotch Highlanders they are divided into clans, and never-ending blood feuds are common among them. They are very hospitable to strangers in their homes, but in their capacity as brigands would not hesitate to rob them abroad. About two thirds of the Albanians are Mohammedans and the rest are mainly Greek Catholics. The future of the people has not yet been decided by the "Allied and Associated Powers." Their land is claimed by Italy, Greece, and Jugo-Slavia, while the Albanians on their part claim that all the surrounding nations are occupying land that is largely peopled by Albanians.

## GREECE

**Physical Features.** — The boundaries of Greece were considerably enlarged at the close of the Bulgarian War, the land bordering the northern shore of the Ægean sea being added with the important seaport of Salonica. Greece is usually divided into "Continental Greece" and "the Islands." The two parts of Continental Greece are connected by the isthmus of Corinth, which is crossed by an important ship canal. The "Islands" consist of Crete, Negropont



The Corinth canal.

(the large island near the eastern coast, anciently called Eubœa), the Cyclades, and various other islands scattered through the Ionian sea.

A lady of Greece.

The question of the ownership of the Ægean islands has not been fully settled. The coast line of Greece is perhaps as irregular as that of any other country in the world, and her people from the earliest times have been noted as fishermen, sailors, and traders. The mainland is broken by mountain ranges into many valleys, plateaus, and river basins. The southern peninsula, or Morea (a name meaning mulberry leaf), is bordered by a narrow coast plain.

**Climate.** — Greece has the usual Mediterranean climate, with hot, dry summers and warm, rainy winters. The climate is a delight to the pleasure-seeker but disastrous to the farmer, whose fields are furrowed by the torrents of winter rain and parched during the growing seasons.

A Greek peasant.

**Effects of Turkish Misrule.** — During the three centuries of Turkish government the forests were cut down and the farm land suffered from flood and summer droughts; but under the present government great progress has been made in agriculture as well as in education, manufactures, and commerce.

**Agriculture.** — Though only one fifth of the surface is fit for cultivation, Greece is chiefly dependent on the products of the soil. The best farming regions are the inland valleys and the plains along the coast. The plains of Thessaly in the north yield large crops of grain; about one half of all the farm land is devoted to

wheat, barley, corn, and other cereals. The product for which Greece is chiefly known is the Zante currant, a small seedless grape which grows luxuriantly along the western coast and on the island of Zante.

The currants are grown in enormous quantities and the amount marketed is limited by law in order to keep up the price. Other products of the soil are tobacco, sugar, olives, figs, and grapes. Minor products of Greece are valonia (acorn cups used in tanning), silk, cheese, and other animal products. Many of the people are shepherds and the country supports over 6,000,000 sheep and goats, besides other farm animals.

**Mining and Manufacturing.** — Iron is the most important mineral, but there is a considerable amount of lead, nickel, zinc, and various earths and clays used in manufacturing. The island of Paros produces the pure white marble from which the ancient sculptors cut the most beautiful statues and architectural ornaments.

The manufacturing establishments are located principally at Athens and Piræus; the products are chiefly articles for home use. Engines are built in the machine shops of Piræus, and ships are built at Syra. Most Greek households make their own carpets, cloth, and other domestic articles.

**Cities and Trade.** — The capital, **Athens**, stands six miles from the sea and is connected by railway with its seaport, **Piræus**. It is the only large city in Greece, and is the chief seat of culture. It has a university and other important educational institutions. The greater part of the ruins of the ancient city are on the summit of the **Acropolis**, or citadel, a flat-topped rock around which the modern Athens is built.

**Greek Art and Architecture.** — On the Acropolis stands the **Parthenon**, the world-renowned temple of Athena, the Greek goddess of wisdom. This was no doubt the most beautiful temple ever built. It was of pure white marble and contained a statue of the goddess. The whole Acropolis and its approaches are thickly strewn with ruins which were once the most perfect specimens of Greek architecture.

The chief **exports** of Greece are agricultural products, crude minerals, olive oil, and wine. She imports various food products, cloth, sugar, and manufactured goods. Her **imports** are chiefly from Russia and Great Britain, but her exports are sent to many countries. The imports are considerably greater than the exports, although

A view of Constantinople and the Golden Horn.

the difference is not so great as formerly. The freights earned by her large fleet of merchant vessels, and the money spent in her cities by tourists more than make up the balance of trade standing against her. Transportation is provided for by good highways and various short lines of railroads which follow the coast. The newly-acquired seaport of **Salonica** is the second city and is connected by rail with Constantinople and the cities of central Europe.

A peasant woman of Turkey.

## TURKEY

**Extent.** — The future of Turkey has not yet been decided by the "Associated and Allied Powers." Her possessions in Europe are now known as "Constantinople State," but whether Turkey will be allowed to retain this State or whether she will be driven back into Asia is a question still unsettled.

**Constantinople.** — This city dates from 700 B. C. when the Greek colony of Byzantium was founded. About 1000

A Turkish letter writer in Constantinople.

years later, the Roman Emperor, Constantine, made it the capital of his empire, naming the city after himself. Its character was entirely changed by the Turks, who captured it in 1453, and it became half European and half Oriental.

Constantinople is built on both sides of an inlet from the Bosporus called the **Golden Horn**, a name arising from the shape of the inlet and from the valuable cargoes of goods entering it. The two sections of the city are connected by the "Galata bridge," which is supported by boats. The bridge with its rows of bazaars on either side is one of the most interesting places in the city, for over it streams daily a most curious assemblage of persons from all parts of the East and the West. Constantinople has hundreds of mosques, which from a distance resemble a forest

Palaces and mosques along the Bosporus.

of domes and minarets. The church of St. Sophia, built by Justinian and turned into a mosque by the Mohammedans, is one of the most costly churches in the world.

A street in Constantinople.

The most beautiful scene about Constantinople is the Bosporus itself, with the hills on both sides lined with palaces and costly residences, and its waters dotted with

The church of St. Sophia.

the ships of all nations. Adrianople stands near the Bulgarian frontier and is the most important military post in Turkey.

REVIEW. — (1) Account for the name of the Balkan peninsula. (2) By what two straits is it separated from Asia? (3) What nations does it now contain? (4) By whom were they formerly ruled? (5) Describe the surface and climate of Rumania. (6) What are the chief products? (7) Why are the industries in a backward condition? (8) What are the two physical divisions of Bulgaria? (9) How do these sections differ in climate and products? (10) What are the principal minerals and manufactures? (11) Name the capital and the chief seaport. (12) What is said of the surface and size of Albania? (13) When did Albania become independent? (14) Describe the people and industries. (15) What are the two divisions of Greece? (16) What is said of the "Islands"? (17) Describe the surface of the mainland. (18) What is said of the climate? (19) What are the farm products? (20) What fruit is famous? (21) What is the capital of Greece? (22) What famous ruins in the city? (23) Describe the foreign trade. (24) What are the two leading seaports? (25) By what name are Turkey's European possessions now known? (26) What two cities in European Turkey? (27) Write a paragraph about Constantinople.

SOUTH CENTRAL EUROPE
Scale of Miles
0 50 100 200 300
Largest Cities in each Country——Athens
Cities next in importance——Budapest
Capitals
Railroads
Plebiscites to determine sovereignty
10° 15° Longitude East 20° from Greenwich 25° 30°
50° 45° 40° 35°
Warsaw
Lodz
Prague
Vienna
Budapest
Bucharest
Belgrade
Sofia
Skutari
Naples
Athens
Constantinople
Smyrna
Tarnopol
Lemberg
Cracow
Tarnow
Jaroslaw
Sambor
Kaschau
Muckaos
Czernowitz
Jassy
Odessa
Munich
Salzburg
Linz
Passau
Budweis
Brunn
Pressburg
Tokay
Erlau
Debrezin
Grosswardein
Klausenburg
Hermannstadt
Kronstadt
Braila
Galatz
Bucsco
Versecz
Temesvar
Arad
Maros R.
Iron Gates
Krajova
Karakul
Silistria
Rustchuk
Varna
Burgas
Sistova
Nissa
Widin
Kruchevatz
Passarowitz
Novi Bazar
Vranja
Philippopolis
Adrianople
Dimotika
Uskub
Monastir
Okhrida
Durazzo
Elbasan
Saloniki
Gallipoli
Innsbruck
Klagenfurt
Gratz
Marburg
Laibach
Goritz
Trieste
Venice
Fiume
Pola
Ferrara
Bologna
Ravenna
Florence
Rome
Mt. Vesuvius
Bosnia
Sarajevo
Spalato
Bacialuka
Cetinje
Brindisi
Otranto
Gulf of Taranto
Corfu
Trikala
Volo
Mt. Olympus
Arta
Prevesa
Patras
Corinth
Argostoli
Zante
Pyrgos
Sparta
Kalamata
Navarino
Modon
Coron
Cerigo
Milo
Syra
Hermopolis
Naxos
Chios
Mitylene
Lemnos
Imbros
Samothrace
Tenedos
Rhodes
Santorini
Kanea
Retimo
Candia
Crete
Piraeus
Euboea
Skyros
Thasos
Palermo
Trapani
Messina
Reggio
Mt. Etna
Catania
Lipari Is.
Stromboli
Gozzo
Malta
Valetta
C. Spartivento
C. Matapan
C. Malia
Tyrrhenian Sea
Ionian Sea
Adriatic Sea
Aegean Sea
Mediterranean Sea
Black Sea
Sea of Marmora
Dardanelles
Bosporus
Turkey
Roumania
Hungary
Switzerland
Austria
Germany
Poland
Ukraine
Bohemia
Moravia
Transylvania
Servia
Albania
Montenegro
Bulgaria
Constantinople State
Danube R.
Save R.
Drave R.
Theiss R.
Maros R.
Aluta R.
Pruth R.
Dniester R.
Bug R.
Vistula R.
Elbe R.
Moldau R.
Oder R.
Po R.
Lake Balaton
Lake Neusiedl
Lake Scutari
Lake Ochrida
Lake Prespa
Lake Ostrovo
Lake Castoria
Lake Janina
Lake Trasimeno
Lake Bolsena
Lake Garda
Lake Como
Lake Maggiore
Lake Lugano
Lake Constance
Lake Zurich
Lake Geneva
Lake Neufchatel
Lake Thun
Lake Brienz
Lake Lucerne
Lake Zug
Lake Wallenstadt
Lake Zell
Lake Wolfgang
Lake Hallstadt
Lake Aussee
Lake Traun
Lake Attersee
Lake Mondsee
Lake Wurmsee
Lake Ammersee
Lake Starnberg
Lake Chiemsee
Lake Konigsee
Lake Tegernsee
Lake Schliersee
Lake Walchensee
Lake Kochelsee
Lake Eibsee
Lake Plattensee
Lake Balaton
Lake Fuchlsee
Lake Mattsee
Lake Obersee
Lake Hintersee
Lake Fuschlsee
Lake Zellersee
Lake Wolfgangsee
Lake Hallstadtsee
Lake Auseesee
Lake Traunsee
Lake Attersee
Lake Mondsee
Lake Wurmsee
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Lake Eibsee
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Lake Balaton
Lake Fuchlsee
Lake Mattsee
Lake Obersee
Lake Hintersee
Lake Fuschlsee
Lake Zellersee
Lake Wolfgangsee
Lake Hallstadtsee
Lake Auseesee
Lake Traunsee
NEW YORK
50,000 SQ. MILES
(NEARLY)
COMPARATIVE AREA
Wms. Eng. Co., N.Y.

## CHAPTER XIII

### THE NEW NATIONS OF EUROPE

**Boundary Changes.** — If you examine the map of Europe between the Black sea and the Baltic you will find the names of eight nations made independent by the war. These are Finland, Esthonia, Latvia, Lithuania, Poland, Ukraine, Czechoslovakia, and Jugo-Slavia. The western third of Russia, nearly all of Austria-Hungary, and about one fifth of Germany have been used to make up these new nations and to enlarge other old nations. Old Serbia has been made over into Jugo-Slavia by the addition of Montenegro and parts of Austria. Rumania has been enlarged at the expense of Russia and Austria. France, Belgium, and Denmark have had restored to them the lands taken from them by Germany. Hungary has been made much smaller, while Turkey in Europe has nearly disappeared from the map. Italy has recovered the Trentino (the land in the neighborhood of the city of Trent), the city of Trieste, and other territory on the eastern shore of the Adriatic sea.

**Comparative Size of Countries.** — Russia is still the largest country in Europe, but Austria, formerly second in size, now ranks with the small nations. Poland, Finland, and the Ukraine rank with Great Britain, France, and Germany. Next come Spain, Sweden, Norway, and Italy followed by Jugo-Slavia, Rumania, Czechoslovakia, and Greece. The rest are the "small nations," with Constantinople State as the smallest of all.

## FINLAND

**Physical Features.** — Finland is one of the three countries of Europe which extend beyond the Arctic Circle, and hence has a very cold climate. The land is very level and is dotted with thousands of lakes, from which it is called "Suomi," or the Land of the Lakes. The northern part of Finland belongs to the belt of swamp land known as the "Tundras," and is unproductive; but the southern half is a fertile farming and grazing region. The area is a little less than 150,000 square miles, and the population about 3,000,000. The chief foreign races in the country are Swedes, Russians, Germans, and Lapps. The Finns and the Lapps are of the same race as the Tartars of northern and central Asia, and they have inhabited the region where they now live for the past 2,000 years.

**Government.** — For many years Finland has been governed by Russia as the "Grand Duchy of Finland." The object of the Russian government was to crush the national spirit of Finland, and there was much disorder. With the Russian Revolution in 1917 the Finns got back the right to govern themselves and they declared their independence in December of that year, and established a republican form of government.

**Industries and Cities.** — Farming, herding, and lumbering are the leading industries. Rye, barley, oats, wheat, flax, and hemp are the chief grain crops. Potatoes and all kinds of root crops flourish. Good breeds of cattle are kept, and dairy products form a valuable export. The northern part of the country abounds in minerals and forests. Pig iron and bar iron are manufactured and exported. Paper, tar, and pitch are the chief forest and wood products. Flour, meal, and hides are sold to the neighboring countries. There are valuable fisheries in the Baltic and salted fish are exported.

The merchant marine comprises 2,800 sailing and steam vessels, and there are 2,500 miles of railroad. An active com-

merce is carried on by sea and land. Helsingfors is the capital and chief city.

## THE BALTIC PROVINCES

**People and History.** — These provinces are the three small states of Esthonia, Latvia, and Courland, lying on the eastern shore of the Baltic sea south of the Gulf of Finland. The Esths are of the same race as the Lapps and Finns, but are far more advanced in civilization than their kinsmen to the north. South of the Letts, as the people of Latvia are called, are the Lithuanians, and to the west of the Lithuanians are the Prussians of East Prussia. The people of the Baltic states were independent in early times, but with the growth of the Russian power they became subject to that country. With the coming of the last Russian Revolution in March, 1917, all of them declared their independence.

## ESTHONIA

This country lies opposite Finland across the gulf of that name. It is a peninsula embraced by the Baltic sea and the two gulfs that open into it. The area of Esthonia is 7,600 square miles, and the population is about 500,000 consisting mainly of Esths and Finns. The surface is low and level, much of the land consisting of sand and marsh. About one fifth is covered with evergreen forests. The northern coast is bordered with high cliffs. The climate is very moist and favorable to agriculture. The majority of the people cultivate the soil, raising grains and vegetables, especially potatoes. Iron and granite are the chief minerals. The principal manufactures are spirits, cotton cloth, and machinery. **Reval**, the capital, the largest city, and chief seaport, is a noted bathing resort.

## LATVIA

Latvia is variously known as Lettonia, Livonia, or Letvia. The official spelling is not decided. The country lies between Esthonia and Lithuania. Its area is 17,574 square miles and its population about 1,800,000. The surface resembles that of Esthonia — flat and sandy near the coast with a large part covered with dwarfed forests of pine, spruce, fir, oak, alder, birch, and larch. The interior plateau rises nearly 500 feet above the sea, and is excellent farming land. The leading crops are, rye, barley, oats, flax, wheat, and hops. The river Dwina crosses the country, and there are several lakes of considerable size. The fisheries off the coast are the principal source of animal food. Elk, wolves, and bears are found in the forests. Riga is the largest city and the chief seaport. The manufactures are sugar, spirits, tobacco products, linen, cotton, and woolen goods. There are about 900 establishments employing 25,000 workmen, with an output of $30,000,000 annually.

## LITHUANIA

**Race and History.** — The Lithuanians belong to the white race, but are neither Slavs nor Teutons. They are the parent race of the Letts and the Borussians (now Prussians), and have lived since the very beginning of European history on the shores of the Baltic sea and on the plain between the Niemen and Dwina rivers. At the beginning of the eleventh century the ancient nation divided into three branches. The Prussians moved westward, the Letts northward, while the parent race continued to occupy the old home land between the Niemen and Dwina.

The Lithuanians are also closely related to the Poles; in 1386 these two nations were united by the marriage of the King of the former nation with Yadviga, the Queen of Poland.

The two countries then extended from the Baltic to the sea of Azov and became the most powerful nation in Europe. From the sixteenth century on, the power of Lithuania waned before the rising kingdom of Russia, which finally conquered both Poles and Lithuanians.

Kosciuszko was a Lithuanian patriot who came to America and fought under Washington during our Revolutionary War. He afterward returned to his native land and fought many battles with the Russians in defense of his country, until finally defeated and imprisoned in 1794. He died in Switzerland in 1817.

**The New Republic.** — The city of Vilna on the Niemen has always been the center of Lithuanian life, and here in January, 1918, a congress of Lithuanian representatives met and affirmed their independence, which had been formally declared in 1905 and 1917. As the country has no natural boundaries the people have spread out in every direction and many of them are found in the bordering countries. The fixing of the political boundaries is therefore a very difficult matter and will be determined by the ratio which the Lithuanians bear to other races.

**Surface, Climate, Products.** — The land is very level and slopes gently toward the Baltic sea. Much of it is swamp and marsh land, and is partly covered with forests of pine, which have given rise to various lumber industries. To the east and south there is excellent farm land, which yields wheat, rye, tobacco, potatoes, and fruits. Many cattle are raised and dairying is a leading industry. The chief manufactures are, lumber, flour, leather, liquors, paper, glass, and metal work.

**Cities.** — The capital and chief city is Vilna, a river port on the Niemen. It contains about 200,000 inhabitants, and is the chief manufacturing and commercial center. **Kovno**, with about 100,000 population, manufactures soap, candles matches, flour, tobacco, and textiles. **Grodno** has about

50,000 people; it was once the seat of government for Poland and Lithuania; it has a variety of manufactures including building materials and machinery.

## POLAND

**People and History.** — The Poles are a very ancient Slavonic race who came into Europe long before the Russians. We hear of them on the banks of the river Vistula in the sixth century, and the Polish kingdom rose to the height of its power in the fourteenth and sixteenth centuries. After this the history of Poland is one long story of wars with the rising power of Russia and her neighbors, the Prussians and Austrians. Finally, in 1795, the Poles were overcome and their territory was divided among the conquerors, Russia getting the largest share. During the World War just closed, Poland was overrun and devastated by the Germans, who granted the country, temporarily, an independent government in 1917.

**Present Area and Territorial Claims.** — Early in the seventeenth century Poland contained 375,000 square miles, and extended from Hungary and Turkey to the Baltic sea. It included the kingdom of West Prussia, the Red Russian portion of Galicia, besides the Ukraine, Lithuania, and Livonia, or Latvia. The capital was Warsaw. The present territory on the Vistula centering about Warsaw contains 70,000 square miles, and of the 20,000,000 population 14,000,000 are Poles. Besides this territory, however, Poland claims additional lands on every side, including Posen, West Prussia, parts of other German provinces inhabited by Poles, and other lands now held by Lithuania, Czechoslovakia, and Ukrainia. All these claims are disputed and remain to be adjusted by the Council of the Allies at Paris.

**Natural Resources and Industries.** — When the final territorial adjustments have been made, Poland will doubtless

rank next to Italy in size and have a population of 40,000,000. She will have great resources in fertile soil, extensive forests, and vast and varied mineral deposits. There is no variety of grain, vegetable, or fruit that will not flourish upon her soil. The forests comprise both evergreens and hardwoods and yield valuable lumber, timber, potash, and other forest products. There are abundant deposits of coal, iron, lead, salt, copper, and silver. Gold and potash are mined. Petroleum is found on the northern slopes of the Carpathians. The coal mines yielded 52,000,000 tons in 1911. Textile and metal manufactures are well developed. The leading exports in the past have been beet sugar, starch, spirits, cattle, pigs, fowls, eggs, and dairy products. **Warsaw** and **Lodz** are the chief cities. Both are important manufacturing centers.

## UKRAINIA

**Country and History.** — The Ukrainians, or "Little Russians," are a Slavonic people inhabiting the southwestern part of Russia extending across the Carpathians into Austrian Galicia, where they are known as Ruthenians. Their country includes eight states centering at Kief, the ancient capital. The area is about 300,000 square miles — nearly the same as Texas and Louisiana combined — and the population is between 30,000,000 and 35,000,000. Additional races living within Ukrainian boundaries bring the total population up to 40,000,000.

The " Grand Principality of Kief " was at one time the ruling Russian State. In fact, the Ukrainians claim that they are the only genuine Russians, and that the " Great Russians " of the State of Moscow are a mixed race of Finns, Russians, and other tribes. The Ukrainians were the first branch of the Russian people to be converted to Christianity, which was carried from them to the other Russians. In the ninth century the Ukrainians were absorbed by the kingdom of the Poles and Lithuanians, and in the 12th and 13th centuries their land was devastated by the terrible Mongol armies, which swept away nearly the entire population, the small remnant taking refuge with the Poles and Hungarians. Since that time the land

of the Ukrainians has been under the rule of the Great Russians of Moscow and Petrograd. During this whole period the Ukrainians have been persecuted by Russians, Poles, and Hungarians alike, who have tried to destroy their nation by forbidding the use of their language and the practice of their customs, religion, and laws. Nevertheless they have preserved their identity as a nation, and they are now claiming independence. This independence was proclaimed by the Rada, or Parliament, November 20, 1917, and freedom of speech, religion, and the press was declared.

**Resources and Products.** — Ukrainia lies in the famous "Black Earth" region, on this account sometimes called "Black Russia." The soil is wonderfully fertile and productive of wheat and other grains. The vine and other fruits flourish, and potatoes and other root crops yield enormous returns. Ukrainia may easily become, next to Russia, the most productive agricultural country in Europe. It ranks next to Russia in size and stands probably third in population. At the present time all industries are disturbed by war, and it is still uncertain what the outcome will be for this ancient land.

## CZECHOSLOVAKIA

**The Land.** — The country of the Czechs and Slovaks consists of a strip of mountain and plateaus, about 400 miles in length, lying along the upper waters of the Danube, the Elbe, and the Moldau rivers. It is hemmed in by high mountain ranges. The Carpathians border the south and east; the Erzgebirge (ore mountains), and the Riesengebirge (giant mountains) are on the north, while the mountainous region of the Bohemian Forest lies on the west. A central highland divides the country into northeastern and southwestern slopes, down which rush the numerous tributaries of the Danube and the Elbe.

The country includes the ancient kingdom of Bohemia and Moravia, Austrian Silesia, and portions of the Carpathian region lying farther east, the boundaries of which have not yet been fixed. The Ukrainians to the eastward, known as Ruthenians, have mingled with the Slovaks, and are claimed by them as a related race.

The entire area is about 50,000 square miles, nearly the same as that of the state of New York, and the population is approximately 9,000,000 Czechs and Slovaks, besides 4,000,000 Germans, Hungarians, and other races.

**Race and History.** — The Czechs and Slovaks are Slavonic tribes who entered this mountain region in the sixth century, being driven westward by the Avars, a warlike Tartar people. They displaced the Marcomanni, a branch of the Teutonic family, who formerly had driven out the Boii, of whom we read in Julius Caesar's story of his "Gallic Wars." For many centuries they maintained their independence, though surrounded by their traditional and bitter enemies, the Germans and Hungarians. In 1637, about three centuries ago, their government was abolished and they have since been ruled by either Germany or Austria. The Czechs are the leading race, and the native name of the country is "Czechy." Czech is the official language, of which Slovak is a dialect.

**Soil, Climate, Products.** — The soil of the Slovak country is poor, but that of the Czechs is rich and fertile. The climate is of the cold-temperate variety, resembling that of the northern part of the United States. The average annual temperature is $46\frac{1}{2}°$ F. The spring rains are heavy, and the rivers in the higher regions become swollen torrents in the rainy season. The most valuable farm product is the sugar-beet and the manufacture of sugar is the leading industry dependent on the soil. Rye, oats, potatoes, and other vegetables flourish.

**Minerals and Forests.** — The mineral wealth is rich and varied, including coal, iron, silver, lead, tin, antimony, and graphite. The northern mountain region affords the most of these, and the chief manufacturing cities are in this section. As the country is mountainous, it has, as we might expect, much land given up to forests. It is estimated that one third of the country is covered with hardwoods and evergreen species. The Czechs are a very intelligent and industrious people, and have developed extensive manufactures. After the effects of

the war shall have passed away they will doubtless develop into a great commercial nation. The chief cities are Prague and Brünn.

## JUGO–SLAVIA

**Boundaries and People.** — The country of the Jugoslavs, or South Slavs, lies, in general, between the Danube and Drave rivers and the Adriatic sea. It comprises the formerly separate and independent countries of Serbia and Montenegro, and the provinces of Bosnia-Herzegovina, Croatia-Slavonia, and Carniola, all of which formerly belonged to the Austrian Empire. The boundaries with Austria, Italy, Hungary, Rumania, Bulgaria, Greece, and Albania, which countries border on Jugo-Slavia, are still unsettled. The probable area of the new constitutional monarchy will be 100,000 square miles, and the population 15,000,000. The leading races are the Serbs, Croats, and Slovenes, but there are many others, with every variety of custom, religion, and traditions. About two thirds of the people are Slavs; the rest are mainly Turks, Germans, Italians, and other races from the bordering nations that have "filtered" in. The prevailing religion of the Slavs is the Greek Catholic; the Roman Catholics are next in numbers; Mohammedans and Jews together make up something more than a half-million.

**Surface, Climate, and Products.** — Jugo-Slavia is crossed by numerous offshoots of the central mountain system running in a northeast-southwest direction. The drainage is mainly into the river Save, which crosses the central part of the country and joins the Danube at Belgrade, the former capital of Serbia. There is a narrow strip of coast land which slopes toward the Adriatic sea. Much of the rock is limestone, which has been dissolved by the waters forming grottoes, caves, intermittent lakes, and underground streams. The famous "Karst" limestone region is in Croatia-Slavonia. It is remarkable for curiously

sculptured rock forms. There is much fertile land on the slopes and in the river valleys yielding wine, silk, fruits, grains, and vegetables. The climate is apt to be severe in the mountain regions in winter, but is generally mild with plenty of moisture.

**Forests.** — Nearly one third of the surface is covered with forests of oak, chestnuts, beech, and pine. These forests support vast herds of swine, which fatten upon the "mast," or nuts. Herdsmen are employed to look after the animals. The hardwoods are used in the manufacture of wagons, farming tools, various articles of wood, and lumber for building purposes.

**Farming.** — The farms are small, but well-worked and very productive of corn and other grains, hemp, hay, and especially plums. The silk product is valuable and increasing, and marmalade and brandy are manufactured from the plum crop. Much attention is given to bee culture.

**Minerals.** — Jugo-Slavia contains some of the richest mineral deposits in Europe. Gold, silver, lead, copper, iron, and quicksilver are found. The quicksilver mines at Idria in Carniola rank next to those of Spain in the value of the output. Owing to the backwardness of the people the rich mineral resources have been little developed, and the people have devoted themselves mainly to the more primitive occupations of farming and grazing. Every advantage is at hand to make this country a leader among the manufacturing countries of the continent.

**Cities.** — The capital and largest city is **Belgrade**, famous in history for the defeat of numerous Turkish armies attempting the conquest of Europe. Belgrade was almost entirely destroyed by the Austrians and Germans during the Great War. The public buildings were battered down, and all the homes of the wealthier citizens were plundered and burned. Sixty trainloads of "loot" were carried off. Sarajevo, the capital of Bosnia-Herzegovina, is famous as the scene of the murder of

the Archduke Ferdinand, the event which kindled the Great War. **Laibach**, the capital of Carniola, is a railroad center on the main route of trade between Vienna and Trieste. **Agram** is the capital and chief city of Croatia-Slavonia. **Fiume** is the seaport of the country, but it has not yet been settled whether it shall belong to Italy or Jugo-Slavia.

MAP STUDIES. — (1) Compare the latitude of Europe with that of North America. What part of each continent is crossed by the Arctic circle? Which continent extends further south? (2) What part of North America lies directly west of the British isles? Directly west of Spain? (3) How do the parts of these continents lying in the same latitude compare in climate? (4) What is the distance from New York to Liverpool? From New York to Havre? To Hamburg? (5) What is the distance from Pernambuco and Para to the nearest ports of Europe and Africa? (6) Trace the route from London west-

ward to Hongkong. (7) Trace a route from London by way of the Suez canal to Bombay. (8) What waters are crossed on this route? (9) Trace a route by sea from Lisbon to the Cape Verde islands; from this point to Cape Town, and from Cape Town to Melbourne. (10) Compare this distance with the western route to Melbourne, by way of New York, San Francisco, and Honolulu. (11) What is the distance from Hongkong to Yokohama? From Yokohama to Victoria? From Victoria to Montreal?

# COMPARATIVE STUDY OF EUROPE AND NORTH AMERICA

LOCATION AND SIZE. — (1) In what zone is the greater part of these two continents? (2) How many degrees of longitude between London and New York? Between London and San Francisco? (3) What city of Europe directly east of New York? (4) What city of North America due west from Petrograd? Locate this city. (5) What is the time at New York City when it is twelve o'clock at London? (6) Compare North America and Europe as to size. (7) What form of government prevails in the countries of Europe? (8) In those of North America?

OUTLINE. — (1) What natural division of land is each of these continents? (2) Which has the more irregular outline? (3) Name the chief peninsulas of each continent. The chief islands. The chief seas, gulfs, and bays. (4) Which of these are farthest inland? (5) What great indentations on the southern borders of each of these continents?

SURFACE. — (1) Name the chief mountain system of each continent. (2) How do they compare as to direction and extent? (3) How do the Appalachian highlands compare in direction and character with the northern highland region of Europe? (4) Compare the great lowland plain of Europe with that of North America. What is the extent of each north and south? East and west?

LAKES AND RIVERS. — (1) Compare the largest river of Europe with the largest river of North America as to direction, length, and size of basin (see APPENDIX, p. iii). (2) Name the three rivers of Europe that are next in size and compare them with the St. Lawrence, the Mackenzie, and the Yukon. (3) Name some rivers of Europe flowing north. What great river flows east? (4) Name two flowing south. (5) What can you say of the navigability of the rivers of Europe and North America? (6) In what part of Europe are the largest lakes? In what part of North America? (7) Compare the largest lake of each continent as to size. (8) What can you tell of the origin of the lakes of these continents?

SOIL AND CLIMATE. — (1) In what part of each continent do we find the most productive soil? (2) Which has the greater extent of alluvial soil? (3) Compare the extent of the Mississippi basin with the basins of the Volga and the Danube rivers. (4) Compare the area of the Po basin with that of the St. Lawrence basin. (5) In what part of each continent do we find soil formed from glacial drift? (6) Tell something of the effect of glaciers on the soil. (7) What region in Russia may we compare with the prairies of the United States? (8) What part of the United States resembles southern Europe in soil and products? (9) Which parts of these continents receive the greatest amount of rainfall? (10) From which direction does the rainfall come in each case? (11) Compare the climate of Great Britain with that of the part of North America lying directly west of it. (12) What part of Europe has a climate resembling that of California? (13) In what part of each continent do we find dry regions suitable for grazing? (14) Why has the southern coast of Europe less rainfall than the southern coast of North America? (15) Why is the climate of Europe warmer than that of North America, when lands lying in the same latitude are compared? (16) Compare the effects of the westerly winds on each of these continents. Why the difference?

PLANTS AND ANIMALS. — What are the chief conditions that affect plant and animal life? (2) What are the four plant regions of Europe? Give the characteristics of each region. (3) Compare the most northern of these regions with the northern part of North America. (4) Compare the forest belts of the two continents with respect to location and variety of trees. (5) Compare the regions lying south of the forest belt as to plant life. (6) Which continent has the greater variety of wild animals? How do you account for this? (7) What parts of each continent raise the greatest number of domestic animals? (8) Name five leading cultivated plants of Europe and five of North America. Compare. (9) In what part of each continent do you find the vine? Tropical

POLITICAL MAP OF
NORTH AMERICA
Scale of Miles
0 100 200 400 600 800 1000
Largest City in each Country--- New York
Cities next in importance ---------- Chicago
Capitals ---------- *
Williams Engraving Co., N.Y.
120° 110° Longitude 100° West from 90° Greenwich 80° 70°
ARCTIC OCEAN
PACIFIC OCEAN
ATLANTIC OCEAN
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GULF OF MEXICO
BERING SEA
ASIA
ALASKA
DOMINION OF CANADA
HUDSON BAY
GREENLAND
ICELAND
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HAITI
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BERMUDA ISLANDS
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SOUTH AMERICA
Tropic of Cancer
Cape San Lucas
Cape Mendocino
San Francisco
Los Angeles
Mt. Whitney
Mt. McKinley
Mt. St. Elias
Sitka
Juneau
Dawson
Arctic Circle
Edmonton
Calgary
Regina
Winnipeg
Port Arthur
Montreal
Ottawa
Toronto
Quebec
Halifax
St. John's
Newfoundland
Labrador Pen.
Hudson Strait
Davis Strait
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Greenland
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Queen Charlotte Islands
Mt. Rainier
Mt. Hood
Mt. Shasta
Lassen Peak
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Red R.
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Arkansas R.
Tennessee R.
Gila R.
El Paso
Juarez
Monterey
Durango
San Luis Potosi
Guanajuato
Guadalajara
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Vera Cruz
Mexico
Vol. Popocatepetl
Acapulco
Campeche
Gulf of Campeche
Yucatan Pen.
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Reindeer L.
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Lake Ontario
St. Lawrence R.
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Nova Scotia Pen.
Cape Race
Cape Farewell
Cape Chidley
Fiskernaes
Godthaven
Disco
Melville Pen.
Boothia Pen.
Prince of Wales Land
Victoria Land
Parry Islands
Ellesmere Land
Grinnell Land
Baffin Land
Cape York
Cape Bridgeman
Cape Barrow
Cape Bathurst
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fruits? Olives? (10) Name some products of Europe that are not produced in North America. How do you explain this? (11) Name the chief plants of each continent which are useful as raw material. What animals supply raw materials?

PEOPLE. — (1) In what part of Europe do you find the greatest density of population? In what part of North America? (2) Compare the density of population of the two continents. (3) Give reasons why that of Europe is greater. (4) Why are the leading races of Europe and America the same? (5) Name the races peculiar to each continent. (6) In what way do they resemble each other? (7) What relation do you notice between the disposition of people to emigrate and their energy and civilization? (8) What is generally true of *stationary* races?

INDUSTRIES. — (1) Name the seven leading occupations of mankind. (2) In which of these is Europe the leading continent? (3) In which is America the leading continent? (4) What are the chief industries of the countries of western Europe? (5) What part of North America leads in similar industries? (6) Leading occupations of eastern Europe? Compare with North America. (7) What are the leading occupations of the people of southern Europe? (8) Compare the lumbering industries of the two continents as to location and value. (9) In a similar manner compare the grazing, mining, and fishing industries. (10) Describe the commerce of Europe, and compare it with that of North America as to products exchanged and their value.

CITIES. — Make a list of the ten largest cities of Europe and compare with the ten largest of North America. What is meant by a capital city? (2) Make a list of the capital cities of each continent. (3) Make a list of the ten leading seaports of each continent and tell something of the trade of each. (4) Make a list of the ten largest inland cities of each continent and describe briefly the character of each.

# INDEX AND PRONUNCIATIONS

The authority followed in the system and manner of pronunciation is Webster's International Dictionary, edition of 1910.

Key to the Symbols used. — **Vowels:** ā *as in* āle, å *as in* senâte, â *as in* câre, ă *as in* ăm, ä *as in* ärm, à *as in* àsk; ' ē *as in* ēve, ê *as in* êvent, ĕ *as in* ĕnd, ē *as in* makēr; ī *as in* īce, ĭ *as in* ĭll; ō *as in* ōld, ô *as in* ôbey, ô *as in* ôrb, ŏ *as in* ŏdd; ū *as in* ūse, û *as in* ûnite, û *as in* ûrn, ŭ *as in* ŭp, ü *as in German* ü *or French* ü. **Diphthongs:** ou *as in* out, oi *as in* oil, ōō *as in* mōōn, o͝o *as in* fo͝ot. **Consonants:** ch *as in* chair, g *as in* go, th *as in* then, th *as in* thin. *Italics* are silent.


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**Key.** — āle, senâte, câre, ăm, ärm, àsk; ēve, êvent, ĕnd, makēr; īce, ĭll; ōld, ôbey, ôrb, ŏdd; ūse, ûnite, ûrn, ŭp, menü; out, oil, fo͝od, fo͝ot; chair; go; then, thin.

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Russia (rŭsh'ȧ), 138–151.
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St. Gall, 136.
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Sardinia, 119.
Saxony, 73.
Scafell mountain (skô fĕl'), 42.
Scheldt (skĕlt), 59, 85.
Scheveningen (skā'vĕn ĭng ĕn), 92.
Schleswig (shlȧz'vĭk), 73, 106.
Scotland, 37–41.
Seine river (sȧn), 58.
Seraing (sĕ răn'), 86.
Serbia, 155, 166, 175.
Severn river, 33, 41.
Seville, 126.
Sevres (sȧ'vr'), 64.
Shannon river, 35.
Sheffield (shĕf'ēld), 46.

Shetland islands, 38.
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Snowden mountain, 43.
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Solingen (zō'lĭng ĕn), 80.
Solway firth, 37, 42.
Somme river (sŏm), 58.
Southampton (south ămp'tŭn), 49.
Spain, 121–129.
Staffa island, 38.
Stirling, 41.
Stockholm (stŏk'hōlm), 101.
Strassburg (shträs'bŏŏrk), 82.
Stratford-on-Avon, 49.
Stromboli, vol. (strŏm'bō lē), 14, 119.
Stuttgart (stŭt'gärt), 81.
Suez canal, 32.
Swansea (swŏn'sē), 43.
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Tay river, 39.
Tees river, 33, 41.
Thames river (tĕmz), 33, 42.
Toledo, 127.
Toulon (tōō lôn'), 56, 59, 70.
Trent river, 33.
Trondhjem (trŏn'yĕm), 98.
Tula, 147.
tundras, 22, 143, 167.
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Utrecht (ŭ'trĕkt), 92.

V

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Valetta, 119.
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Vesuvius volcano, 14, 114.
Victoria Haven, 101.
Vienna, 153.
Vilna (vĕl'nà), 170.
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Winchester, 49.
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Yarmouth (yär'mŭth), 34.

Z

Zurich (zōō'rĭk), 135, 136.
Zwickau (tsvĭk'ou), 80.

# APPENDIX

## DIMENSIONS OF THE EARTH

| | | |
|---|---|---|
| Polar diameter of the earth | 7,899 | miles |
| Equatorial diameter of the earth | 7,926 | " |
| Length of the equator | 24,902 | " |
| Length of a meridian circle | 24,857 | " |
| Average length of a degree of latitude | 69 | " |
| Length of a degree of longitude at the equator | 69.2 | " |
| " " " " " " 10° north or south | 68 | " |
| " " " " " " 20° " " " | 65 | " |
| " " " " " " 30° " " " | 59 | " |
| " " " " " " 40° " " " | 52.3 | " |
| " " " " " " 50° " " " | 44.4 | " |
| " " " " " " 60 " " " | 34.5 | " |
| " " " " " " 70° " " " | 23.6 | " |
| " " " " " " 80° " " " | 12 | " |
| " " " " " " 90° " " " | 0 | " |

| | | | |
|---|---|---|---|
| TOTAL AREA OF EARTH'S SURFACE | **196,907,000** | square | miles |
| Pacific Ocean | 71,000,000 | " | " |
| Atlantic Ocean | 34,000,000 | " | " |
| Indian Ocean | 28,000,000 | " | " |
| Antarctic Ocean | 7,500,000 | " | " |
| Arctic Ocean | 4,000,000 | " | " |
| *Total Sea* | **144,500,000** | " | " |

| THE CONTINENTS | Square Miles | Population |
|---|---|---|
| North America | 9,431,000 | 106,095,000 |
| South America | 6,856,000 | 38,483,000 |
| Europe | 3,842,000 | 400,700,000 |
| Asia | 17,056,000 | 909,199,000 |
| Africa | 11,512,000 | 141,204,000 |
| Australia | 3,456,000 | 6,458,000 |
| Polar Lands | 254,000 | |
| *Total Land* | **52,407,000** | **1,602,139,000** |

## AREA AND POPULATION OF THE CHIEF COUNTRIES OF EUROPE

| | Square Miles | Population |
|---|---|---|
| England | 50,874 | 34,045,290 |
| Wales | 7,446 | 2,025,202 |
| Scotland | 30,405 | 4,760,904 |
| Ireland | 32,586 | 4,390,219 |
| *United Kingdom* | **121,311** | **45,221,615** |
| Germany | 164,000 | 50,000,000 |
| Netherlands | 12,761 | 6,609,000 |
| Switzerland | 15,950 | 3,800,000 |
| Austria | 25,000 | 7,000,000 |
| Hungary | 25,000 | 5,500,000 |

| | Square Miles | Population |
|---|---|---|
| Norway | 124,400 | 2,400,000 |
| Sweden | 172,900 | 5,500,000 |
| Denmark | 15,500 | 2,800,000 |
| Belgium | 11,755 | 6,000,000 |
| France | 212,697 | 41,750,000 |
| Spain | 196,700 | 20,500,000 |
| Portugal | 35,500 | 6,000,000 |
| Italy | 120,000 | 40,000,000 |
| Greece | 50,000 | 6,000,000 |
| Turkey in Europe | 102,000 | 2,000,000 |
| Bulgaria | 25,000 | 4,000,000 |
| Rumania | 125,000 | 15,000,000 |
| Finland | 150,000 | 3,000,000 |
| Esthonia | 7,600 | 500,000 |
| Latvia | 17,574 | 1,800,000 |
| Lithuania | 50,000 | 5,000,000 |
| Poland | 100,000 | 25,000,000 |
| Ukrainia | 300,000 | 40,000,000 |
| Czechoslovakia | 50,000 | 13,000,000 |
| Jugo-Slavia | 100,000 | 15,000,000 |

## HEIGHTS OF PRINCIPAL MOUNTAINS AND PLATEAUS

| | Feet | | Feet |
|---|---|---|---|
| Mt. Everest, Nepal | 29,002 | Mt. Hooker, Canada | 12,000 |
| Mt. Aconcagua, Argentina | 23,082 | Etna (vol.) Sicily | 10,874 |
| Sahama (vol.) Bolivia | 22,350 | Caucasus Mts. | 10,000 |
| Mt. Sorata, Bolivia | 21,286 | Rocky Mts. | 10,000 |
| Chimborazo (vol.) Ec. | 20,517 | Atlas Mts. | 9,000 |
| Mt. McKinley, Alaska | 20,464 | Cascade Mts. | 9,000 |
| Mt. Killimanjaro, Africa | 20,000 | Sierra Nevada Mts. | 9,000 |
| Himalaya Mts. Asia | 19,000 | Alps Mts. | 8,500 |
| Karakoram Mts. Tibit | 18,500 | Pyrenees Mts. | 8,000 |
| Demavend (vol.) Persia | 18,846 | Mexican Plateau | 7,500 |
| Mt. Elbruz, Caucasus | 18,493 | Mt. Mitchell, N. C. | 6,711 |
| Orizaba (vol.) Mex. | 18,314 | Abyssinian Highland | 6,500 |
| Mt. St. Elias, Alaska | 18,024 | Altai Mts. | 6,300 |
| Hindu-Kush Mts. Asia | 18,000 | Mt. Washington, N. H. | 6,279 |
| Mt. Kenia, Africa | 18,000 | Hekla (vol.) Iceland | 5,110 |
| Keunlun Mts. Tibet | 18,000 | Carpathian Mts. | 5,000 |
| Thian Shan Mts. Asia | 18,000 | Iran Plateau, Persia | 5,000 |
| Popocatepetl (vol.) Mex. | 17,784 | Rocky Mountain Highland | 5,000 |
| Cotopaxi (vol.) Ec. | 16,291 | Balkan Mts. | 4,500 |
| Mt. Blanc, France | 15,744 | Vesuvius (vol.) Italy | 4,205 |
| Tibet Plateau | 15,000 | Apennines Mts. Italy | 4,000 |
| Mt. Whitney, Cali. | 14,502 | Mongolian Plateau, Asia | 3,500 |
| Mt. Shasta, Cali. | 14,380 | Ural Mts. | 3,500 |
| Mt. Rainier, Wash. | 14,363 | Coast Ranges, U. S. | 3,000 |
| Longs Peak, Colo. | 14,275 | Jura Mts. France | 3,000 |
| Fujiyama (vol.) Japan | 14,177 | Kiolen Mts. Norway | 3,000 |
| Pikes Peak, Colo. | 14,111 | Appalachian Mts. U. S. | 2,500 |
| Mauna Kea (vol.) Hawaii | 13,953 | Bohmerwald, Austria | 2,500 |
| Fremont Peak, Wyo. | 13,790 | Brazilian Plateau | 2,000 |
| Andes Mts. | 13,000 | Deccan Plateau, India | 2,000 |
| Bolivian Plateau | 12,500 | Guiana Plateau | 2,000 |

## LENGTH OF RIVERS AND BASIN AREAS

| | Miles | Basin Area in Square Miles |
|---|---|---|
| Mississippi | 4,200 | 1,250,000 |
| Nile | 3,900 | 1,300,000 |
| Amazon | 3,400 | 2,320,000 |
| Yangtze | 3,100 | 690,000 |
| Yenesei | 3,000 | 1,500,000 |
| Obi | 3,000 | 1,100,000 |
| Niger | 2,900 | 1,000,000 |
| Kongo | 2,800 | 1,500,000 |
| Lena | 2,800 | 900,000 |
| Hoangho | 2,800 | 390,000 |
| Amur | 2,700 | 780,000 |
| Mekong | 2,600 | 280,000 |
| Plata | 2,500 | 1,150,000 |
| Volga | 2,300 | 590,000 |
| St. Lawrence | 2,100 | 565,000 |
| Mackenzie | 2,100 | 680,000 |
| Yukon | 2,000 | 380,000 |
| Euphrates | 2,000 | 490,000 |
| Indus | 1,900 | 360,000 |
| Nelson-Saskatchewan | 1,900 | 470,000 |
| San Francisco | 1,800 | 210,000 |
| Ganges | 1,800 | 600,000 |
| Rio Grande | 1,800 | 230,000 |
| Danube | 1,800 | 320,000 |
| Zambezi | 1,600 | 580,000 |
| Orinoco | 1,500 | 425,000 |
| Colombia | 1,400 | 290,000 |
| Dnieper | 1,300 | 197,000 |
| Orange | 1,200 | 270,000 |
| Murray | 1,100 | 350,000 |
| Magdalena | 1,100 | 90,000 |
| Colorado | 1,000 | 230,000 |
| Po | 460 | 27,000 |

## AREA OF LAKES

| | Area in Square Miles | | Area in Square Miles |
|---|---|---|---|
| Caspian | 168,765 | Erie | 9,960 |
| Victoria | 32,167 | Winnipeg | 9,400 |
| Superior | 31,200 | Balkash | 8,550 |
| Aral | 26,766 | Ontario | 7,240 |
| Huron | 23,800 | Ladoga | 7,000 |
| Michigan | 22,450 | Titicaca | 3,261 |
| Tanganyika | 14,000 | Nicaragua | 2,800 |
| Baikal | 13,197 | Great Salt Lake | 2,300 |
| Tchad | 10,400 | Dead Sea | 353 |

## POPULATION OF THE CHIEF CITIES OF EUROPE

| | Population |
|---|---|
| **British Isles** | |
| London | 7,217,941 |
| Glasgow | 847,584 |
| Liverpool | 746,144 |
| Manchester | 272,969 |
| Birmingham | 522,000 |
| Leeds | 470,268 |
| Sheffield | 455,453 |
| Bristol | 367,979 |
| Belfast | 349,180 |
| Edinburgh | 345,747 |
| Dublin | 290,638 |
| Bradford | 290,323 |
| Newcastle | 272,969 |
| Hull | 266,762 |
| Nottingham | 257,489 |
| Leicester | 236,124 |
| Portsmouth | 208,291 |
| Cardiff | 187,620 |
| Aberdeen | 174,579 |
| Dundee | 165,748 |
| Derby | 125,774 |
| Merthyr Tydfil | 122,536 |
| Plymouth | 120,063 |
| Southampton | 119,745 |
| Wolverhampton | 102,016 |
| Swansea | 97,324 |
| Leith | 83,668 |
| Cork | 76,122 |
| Oxford | 51,900 |
| Londonderry | 39,892 |
| Cambridge | 38,939 |
| **Germany** | |
| Berlin (1911) | 3,500,000 |
| Hamburg | 802,793 |
| Munich | 538,983 |
| Dresden | 516,996 |
| Leipzig | 503,672 |
| Breslau | 470,904 |
| Cologne | 428,722 |
| Frankfort-on-Main | 334,978 |
| Barmen-Elberfeld | 318,933 |
| Nuremburg | 294,426 |
| Stuttgart | 249,286 |
| Chemnitz | 244,927 |
| Magdeburg | 240,633 |
| Essen | 231,360 |
| Stettin | 224,119 |
| Königsberg | 223,770 |
| Bremen | 214,861 |

| | Population |
|---|---|
| **France** | |
| Paris | 2,763,393 |
| Marseilles | 517,498 |
| Lyons | 472,114 |
| Bordeaux | 251,917 |
| Toulouse | 149,438 |
| Nice | 134,232 |
| Nantes | 133,247 |
| Havre | 132,430 |
| Rouen | 118,459 |
| Toulon | 103,549 |
| Limoges | 88,597 |
| Brest | 85,294 |
| Calais | 66,627 |
| Versailles | 54,820 |
| Cherbourg | 43,837 |
| Dunkirk | 38,287 |
| Cannes | 34,151 |
| Sevres | 7,954 |
| **Belgium** | |
| Brussels | 623,041 |
| Antwerp | 304,032 |
| **Netherlands** | |
| Amsterdam | 564,186 |
| Rotterdam | 390,364 |
| The Hague | 248,995 |
| Utrecht | 114,692 |
| Leiden | 57,095 |
| Delft | 33,916 |
| Schiedam | 30,038 |
| **Norway** | |
| Christiania | 227,626 |
| Bergen | 72,251 |
| Trondhjem | 38,180 |
| Stavanger | 30,613 |
| Drammen | 23,093 |
| Frederikstad | 14,635 |
| **Sweden** | |
| Stockholm | 332,738 |
| Gothenburg | 156,927 |
| Malmö | 75,691 |
| Norrköping | 45,528 |
| Dannemora | 2,717 |
| **Denmark** | |
| Copenhagen | 426,540 |
| Aarhus | 55,193 |
| Odense | 40,547 |

| | Population |
|---|---|
| **Switzerland** | |
| Zurich | 186,846 |
| Basel | 131,687 |
| Geneva | 116,387 |
| Berne | 73,185 |
| Lausanne | 54,460 |
| St. Gall | 52,934 |
| Chaux-de-Fonds | 41,310 |
| Lucerne | 34,480 |
| Bienne | 27,026 |
| **Austria** | |
| Vienna | 2,000,000 |
| **Hungary** | |
| Budapest | 730,000 |
| **Finland** | |
| Helsingfors | 144,000 |
| **Lithuania** | |
| Vilna | 200,000 |
| **Poland** | |
| Warsaw | 800,000 |
| Lodz | 400,000 |
| **Russia** | |
| Petrograd | 1,400,000 |
| Moscow | 1,300,000 |
| Odessa | 450,000 |
| Kazan | 140,000 |
| Astrakhan | 120,000 |
| Tula | 100,000 |
| Nijni-Novgorod | 90,000 |
| Cronstadt | 50,000 |
| **Spain** | |
| Madrid | 539,835 |
| Barcelona | 533,000 |
| Valencia | 213,530 |
| Seville | 148,315 |
| Malaga | 130,109 |
| Murcia | 11,539 |
| Cartagena | 99,871 |
| Zaragoza | 99,118 |
| Bilbao | 83,306 |
| Granada | 75,900 |
| Lorca | 69,836 |
| Cadiz | 69,382 |
| Cordoba | 58,275 |
| **Portugual** | |
| Lisbon | 356,009 |
| Oporto | 167,995 |
| Braga | 24,202 |
| Setubal | 22,074 |
| Funchal (Madeira) | 20,844 |

| | Population |
|---|---|
| **Italy** | |
| Naples | 563,540 |
| Milan | 493,241 |
| Rome | 462,743 |
| Turin | 335,656 |
| Palermo | 309,694 |
| Genoa | 234,710 |
| Florence | 205,589 |
| Bologna | 152,009 |
| Venice | 151,840 |
| Catania | 149,295 |
| Leghorn | 98,321 |
| **Rumania** | |
| Bucharest | 338,000 |
| **Bulgaria** | |
| Sofia | 103,000 |
| **Esthonia** | |
| Reval | 69,000 |
| **Latvia** | |
| Riga | 350,000 |
| **Jugo-Slavia** | |
| Belgrade | 150,000 |
| Laibach | 42,000 |
| Agram | 79,000 |
| **Czechoslovakia** | |
| Prague | 224,000 |
| Brünn | 126,000 |
| **Ukrainia** | |
| Kief | 300,000 |
| **Montenegro** | |
| Podgoritza | 10,000 |
| Cetinje | 4,500 |
| **Albania** | |
| Scutari | 32,000 |
| Durazzo | 5,000 |
| **Greece** | |
| Athens | 170,000 |
| Piraeus | 70,000 |
| Patras | 37,958 |
| **Turkey** | |
| Constantinople | 1,106,000 |

## AREA AND POPULATION OF THE UNITED STATES AND ITS DEPENDENCIES. CENSUS OF 1920

| | | |
|---|---|---|
| **Area of United States** | **3,026,715** | square miles |
| **Area of Dependencies** | **716,591** | " " |
| **Total Area** | **3,743,305** | " " |
| **Population of United States** | | **105,708,771** |
| **Population of Dependencies** | | **12,148,738** |
| **Total Population** | | **117,857,509** |

| States | Area in Square Miles | Population |
|---|---|---|
| Alabama | 51,998 | 2,348,174 |
| Arizona | 113,956 | 333,903 |
| Arkansas | 53,335 | 1,752,204 |
| California | 158,297 | 3,426,861 |
| Colorado | 103,948 | 939,629 |
| Connecticut | 4,965 | 1,380,631 |
| Delaware | 2,370 | 223,003 |
| District of Columbia | 70 | 437,571 |
| Florida | 58,666 | 968,470 |
| Georgia | 59,265 | 2,895,832 |
| Idaho | 84,313 | 431,866 |
| Illinois | 56,665 | 6,485,280 |
| Indiana | 36,354 | 2,930,390 |
| Iowa | 56,147 | 2,408,021 |
| Kansas | 82,158 | 1,769,257 |
| Kentucky | 40,598 | 2,416,630 |
| Louisiana | 48,506 | 1,798,509 |
| Maine | 33,040 | 768,014 |
| Maryland | 12,327 | 1,449,661 |
| Massachusetts | 8,266 | 3,852,356 |
| Michigan | 57,980 | 3,668,412 |
| Minnesota | 84,682 | 2,387,125 |
| Mississippi | 46,865 | 1,790,618 |
| Missouri | 69,420 | 3,404,055 |
| Montana | 146,572 | 548,889 |
| Nebraska | 77,520 | 1,296,372 |
| Nevada | 110,690 | 77,407 |
| New Hampshire | 9,341 | 443,083 |
| New Jersey | 8,224 | 3,155,900 |
| New Mexico | 122,634 | 360,350 |
| New York | 49,204 | 10,384,829 |
| North Carolina | 52,426 | 2,559,123 |
| North Dakota | 70,837 | 645,680 |
| Ohio | 41,040 | 5,759,394 |
| Oklahoma | 70,057 | 2,028,283 |
| Oregon | 96,699 | 783,389 |
| Pennsylvania | 45,126 | 8,720,017 |
| Rhode Island | 1,248 | 604,397 |
| South Carolina | 30,989 | 1,683,724 |
| South Dakota | 77,615 | 636,547 |
| Tennessee | 42,022 | 2,337,885 |
| Texas | 265,896 | 4,663,228 |

| States | Area in Square Miles | Population |
|---|---|---|
| Utah | 84,990 | 449,396 |
| Vermont | 9,564 | 352,428 |
| Virginia | 42,627 | 2,509,187 |
| Washington | 69,127 | 1,356,621 |
| West Virginia | 24,170 | 1,463,701 |
| Wisconsin | 56,066 | 2,632,067 |
| Wyoming | 97,914 | 194,402 |

## TERRITORIES AND DEPENDENCIES

| | | |
|---|---|---|
| Hawaii | 6,449 | 255,912 |
| Alaska | 599,884 | 54,899 (1920) |
| Porto Rico | 3,606 | 1,118,012 |
| Philippines | 121,935 | 7,635,426 |
| Guam | 207 | 14,142 |
| Samoa | 56 | 7,250 |
| Virgin Is. | 138 | 27,086 |

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